

***TELECOMMUNICATIONS RELAY SERVICE***  
***State Recertification Application***  
***Commonwealth of Massachusetts***  
**October 4, 2012**

**SUPPLEMENTAL MATERIALS**

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**I. Introduction**

Hamilton Relay prepared this supplemental narrative on behalf of the Commonwealth of Massachusetts. Hamilton currently operates the Massachusetts TRS program, MassRelay, under contract with the State 911 Department. Hamilton provides this service for the Commonwealth of Massachusetts from an in-state center located at 703 West Housatonic Street, Suite 148, Pittsfield, Massachusetts 01201-6634.

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**II. Traditional TRS Services Compliance**

**A. Mandatory Operational Standards**

*§ 64.604(a) Operational standards –*

*(1) Communications assistant (CA).*

*(i) TRS providers are responsible for requiring that all CAs be sufficiently trained to effectively meet the specialized communications needs of individuals with hearing and speech disabilities.*

*(ii) CAs must have competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with hearing and speech disability cultures, languages and etiquette. CAs must possess clear and articulate voice communications.*

*(iii) CAs must provide a typing speed of a minimum of 60 words per minute. Technological aids may be used to reach the required typing speed. Providers must give oral-to-type tests of CA speed.*

Hamilton Relay satisfies these requirements. Hamilton Relay currently operates the Massachusetts TRS program, MassRelay, under contract with the State 911 Department. The contract assesses liquidated damages in key areas to ensure standards are met in such areas as typing accuracy, typing speed and speed of answer. Recognizing that high quality Relay Operators are critical to providing consumer satisfaction, Hamilton thoroughly trains its Relay Operators to meet the specialized communications needs of individuals who are deaf, hard of hearing or have difficulty speaking. All Hamilton Relay Operators possess clear and articulate voice communications. They have competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with the various cultures of relay users, languages and etiquette. All Hamilton Relay Operators provide a typing speed of a minimum of 60 words per minute, and Hamilton confirms this by giving oral-to-type tests of Operator speed.

Operators are trained to relay calls in a manner that meets and often exceeds FCC standards. The following describes how Hamilton trains its Operators to meet operational proficiency standards stated above. Before hiring, exams are given to each applicant in the following areas to ensure that the candidate has the needed skills to become a fully trained Relay Operator:

- (1) Spelling skills (must achieve at least 90% correct)
- (2) Reading skills (must be able to read clearly and distinctly)
- (3) Typing proficiency

Additional details about these requirements are as follows:

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**Spelling Skills**

The minimum spelling skill required of Hamilton Relay Operators is the ability to quickly and easily spell words that are equivalent to that of a beginning college level conversation. Operators must pass a spelling exam to be eligible to work as a Hamilton Relay Operator and score in at least the 90th percentile. The spelling skills exam is based on a 12th grade spelling level. Hamilton Relay performs similar testing for Spanish Operators.

**English Reading, Speaking, and Writing Skills**

Operators must meet all grammar proficiency requirements including reading, speaking, and writing English Communication at a minimum of a 12th grade level prior to employment. Hamilton Relay also tests for diction, clear and articulate voice communications and a neutral accent by requiring each prospective Operator to complete a reading exam.

**Typing Proficiency**

Operators must type 60 words per minute (wpm) for five minutes. MassRelay exceeds this service level by requiring Operators to maintain a 95% accuracy level while typing 60 wpm. MassRelay's provider has an average typing speed of 68.9 wpm with 98% accuracy.

Newly hired Operators are required to meet the MassRelay minimum typing proficiency standard on an oral-to-text exam within a three week period before they may take calls. Hamilton Relay also tests its Operators every four months in a manner simulating actual working conditions to document current proficiency levels. If an Operator is unable to meet the 60 wpm requirement, the Operator is removed from live relay calls until further training and compliance can be accomplished.

Hamilton Relay also uses a computer-based typing program for continuing enhancement of keyboarding, spelling and grammar skills. This program is available to all Operators.

Hamilton Relay performs test calls to document current proficiency levels of the Operators and to make sure each is making progress over the term of their employment. Conducting typing tests during live relay calls also ensures that Relay Operators are meeting all typing requirements during actual calls.

**Training**

All Hamilton Relay staff, including management, receive 20 hours of initial training devoted solely to disability issues including ASL "gloss", ASL style and grammar, tone of voice, deaf, hard of hearing and hearing cultures, etiquette, pertinent information about the needs of people who are deaf or hard-of-hearing, the role of the Operator (including training to relay the contents of a call as accurately as possible without intervening in communication) and operation of relay telecommunications equipment including answering machines and computerized services. This training is done through videos, seminars with staff who are familiar with the relay communities, observation (both simulated and on live calls), and a variety of role-play scenarios. Operators are well trained to effectively meet the specialized needs of relay users.

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In addition to basic training during new hire training, Hamilton Relay provides an additional 12 hours of specialized/cultural training annually.

Spanish language relay Operators must complete the same training as all traditional relay Operators and must additionally pass tests confirming proficiency in the Spanish language.

**Proficiency Examinations**

Hamilton Relay Operators begin relaying calls at the end of the three-week training period, assuming all examinations have been passed and proficiency skills have been shown. In addition to these exams and skill tests, Operators must successfully complete several relay call scenarios to demonstrate proficiency in simulated scenarios. Hamilton can then determine that an Operator is meeting and exceeding all minimum FCC proficiency requirements. Tests are kept confidential and portions of the tests are changed routinely. Operators are tested on a variety of topics monthly to ensure that they continue to meet all requirements.

**OPR Performance Monitoring to Ensure Each Operator Continues to Meet All Requirements**

Through its provider's advanced relay platform, Hamilton Relay has established a unique remote call monitoring system. Hamilton Relay uses this call monitoring system to continually monitor call performance. Such items as proficiency and professionalism, procedures, language, voice quality, decorum, and professional knowledge and skills are evaluated daily.

Hamilton Relay constantly monitors its Operators for quality control. Two formal call evaluations are completed each month, and informal "spot checking" is conducted every day to ensure that Operators are performing properly on calls.

Formal call monitoring includes observation of the call from start to finish. The Operator either earns a passing or failing score in the applicable category. These monitorings are conducted by a Relay Supervisor and the Monitoring Supervisor. Two formal evaluations are required of each Operator per month.

Through the call monitoring process, any Operator not in compliance with quality standards is taken off duty for further training and re-testing. These Operators are put on probation and monitored frequently to ensure continued improvement.

**Exceeding Federal Requirements**

MassRelay does exceed some of the mandatory minimum standards contained in Section 64.604. In particular, since 1998, TRS providers in Massachusetts have been contractually liable for liquidated damages for failure to meet established service quality standards. For instance:

**Operator Training and Procedures**

MassRelay not only meets, but also exceeds FCC Operator standards in the areas of hiring and training practices, typing speed to accuracy and in-call replacement of Operators.

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**Ability to Type at 60 wpm**

Hamilton Relay Operators must TYPE 60 words per minute. **MassRelay exceeds this service level by requiring Operators to maintain a high accuracy level in addition to 60-wpm typing.** As per the State's 911 contract requirements, Operators must maintain a typing accuracy of 95%.

**Turbo Code**

MassRelay exceeds the FCC requirement and the State 911 contract that TRS shall be capable of communicating with ASCII and Baudot formats, at any speed generally in use. MassRelay provides Turbo Code, a proprietary alternate protocol developed by Ultratec, as an enhanced protocol and has secured a license from Ultratec to use this protocol in its relay modems. MassRelay users are able to automatically connect "Turbo Code" on every relay call type. With Turbo Code, MassRelay users can use their Turbo Code Interrupt feature.

**Intrastate Spanish**

Although not required of the State 911 contract, in addition to Interstate Spanish to Spanish, MassRelay provides Intrastate Spanish to Spanish, Spanish to English and English to Spanish call handling to the relay users of Massachusetts and processes all the same call types on its Spanish lines as it does on its English voice and TTY lines.

When recruiting and training bilingual Operators, MassRelay requires Spanish Operators pass a Spanish test, attend a Spanish orientation class and take all standard Operator and Speech to Speech training prior to relaying Spanish to Spanish calls.

*(v) CAs answering and placing a TTY-based TRS or VRS call must stay with the call for a minimum of ten minutes. CAs answering and placing an STS call must stay with the call for a minimum of fifteen minutes.*

Hamilton Relay satisfies this requirement. Hamilton operators answering and placing a TTY-based TRS call stay with the call for a minimum of ten minutes. Operators answering and placing an STS call stay with the call for a minimum of fifteen minutes. Hamilton understands that a change of Operators can interrupt the natural call flow. Therefore, Hamilton Relay strives to keep the same Operator dedicated to each call, even at the end of shifts, over lunch hours, and other breaks. Hamilton's experience has been that this procedure provides much greater continuity for the user.

Hamilton Relay only substitutes an Operator if the following should occur:

- **A caller requests a change in Operator**  
Hamilton Relay Operators, when requested, will switch a call to another Operator and retain that Operator for the user throughout the relay call.
- **Verbal abuse/obscenity is directed towards the Operator or refusal to give a number**  
If a relay user becomes abusive towards an Operator (calling names, etc.) or refuses to give a number to dial, Hamilton Relay's procedure is to send a hot key requesting the number to call three times, waiting approximately 20 to 30 seconds between each time



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the hot key is sent. If the Operator is still being harassed or is not given a number to dial, a supervisor is called. The supervisor will try to process the call. If abuse continues or there is no response, a disconnect slip will be completed.

- **The call requires a specialist (Spanish language, speech to speech, etc.)**
- **A perceived conflict of interest exists** (i.e. if the operator personally knows the consumer) **or,**
- **An emergency exists** (illness of operator, etc.)

A change never takes place until either the calling or called party has completed their part of the conversation.

If a call does need to be transferred, another Operator replaces the Operator relaying the call at the same workstation so that the relay user's call is not interrupted (except to identify the new Operator to both parties as per the procedure below). A supervisor monitors the change and must approve the change based on the criteria listed above.

The operator says to the voice user:

“This is operator # \_\_\_\_ continuing your call.”

The operator types to the TTY user:

“OPR # \_\_ continuing your call”

*(vi) TRS providers must make best efforts to accommodate a TRS user's requested CA gender when a call is initiated and, if a transfer occurs, at the time the call is transferred to another CA.*

Hamilton Relay satisfies this requirement. Operators, when requested, will switch a call to another Operator who is of the gender requested by the caller and retain that gender for the user throughout the relay call. Hamilton has the technical capability to automatically route calls to Operators of the preferred gender, if available, based on customer profile selection.

*(vii) TRS shall transmit conversations between TTY and voice callers in real time.*

Hamilton Relay transmits conversations between the caller and voice callers in real time.

*(2) Confidentiality and conversation content.*

*(i) Except as authorized by section 705 of the Communications Act, 47 U.S.C. 605, CAs are prohibited from disclosing the content of any relayed conversation regardless of content, and with a limited exception for STS CAs, from keeping records of the content of any conversation beyond the duration of a call, even if to do so would be inconsistent with state or local law. STS CAs may retain information from a particular call in order to facilitate the completion of consecutive calls, at the request of the user.*

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*The caller may request the STS CA to retain such information, or the CA may ask the caller if he wants the CA to repeat the same information during subsequent calls. The CA may retain the information only for as long as it takes to complete the subsequent calls.*

*(ii) CAs are prohibited from intentionally altering a relayed conversation and, to the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes, must relay all conversation verbatim unless the relay user specifically requests summarization, or if the user requests interpretation of an ASL call. An STS CA may facilitate the call of an STS user with a speech disability so long as the CA does not interfere with the independence of the user, the user maintains control of the conversation, and the user does not object. Appropriate measures must be taken by relay providers to ensure that confidentiality of VRS users is maintained.*

Hamilton satisfies these requirements.

Hamilton Relay Operators are instructed not to disclose the content of any relayed conversation regardless of content, and to refrain from keeping records of the content of any conversation beyond the duration of a call, even if to do so would be inconsistent with state or local law. Operators are instructed not to intentionally alter a relayed conversation. To the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes, Operators are instructed to relay all conversation verbatim unless the relay user specifically requests summarization or if the user requests interpretation of a call. Hamilton Relay employs various methods to ensure that all relay users' confidentiality is maintained, including the restriction of access to its call centers and the partitioning of Operators into individual cubicles to ensure relay call privacy. All MassRelay employees must sign a confidentiality agreement (language provided below) committing to keep all information confidential.

All information about users is treated confidentially and will not be sold, distributed, shared, or divulged by Hamilton or any of its employees, unless divulging such information is compelled by lawful order.

All Hamilton STS Operators have the authority, at the request of the STS user, to retain information beyond the duration of a call in order to facilitate the completion of consecutive calls. Speech to Speech Operators are given the ability to keep records of the content of any conversation and retain information from a particular call in order to facilitate subsequent calls if requested. Speech to Speech Operators only retain this information for as long as it takes to complete the subsequent outbound calls related to the same inbound call.

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**Hamilton Relay Service**  
**Confidentiality Agreement**

I \_\_\_\_\_ do hereby recognize the serious and confidential nature of the Relay Service. I recognize the responsibility this places upon me and its bearing on my continued employment. By agreeing to employment in a Communications Assistant, supervisor or customer service role, I agree to the following conditions:

1. I will not disclose to any individual, including fellow Communication Assistants (CAs) Customer Service Representatives and supervisors, the identity of any caller or information I may acquire about a caller while relaying his/her conversation, except if the user is in life threatening circumstances or causes an emergency situation, or in instances of resolving a complaint.
2. Under no circumstances will I act upon any information I may acquire while relaying conversations.
3. I will not allow any individual to watch or listen while processing actual calls, except for authorized training and quality monitoring purposes.
4. Except when performing Speech-to-Speech or Captioned Telephone Service relay, I will not bring any recording devices, including but not limited to, pens, pencils and Personal Digital Assistants (PDAs), into relay workspace.
5. I will not keep any written or electronic form of a conversation beyond the duration of the call, except as allowed for Speech-to-Speech Relay service.
6. Except for any information necessary for billing purposes or gathering caller profile or 7-1-1 information when requested by the caller, I will not collect nor use a caller's personal information.
7. I will not register my company as the caller's CRS relay provider of choice without the expressed permission of the caller. When explaining about a caller's choice of relay providers I will strive to ensure that the caller receives a clear, accurate and forthright understanding of his or her options and of the registration process. I will not engage in deceptive practices that result in obtaining a caller's permission deceitfully.
8. Under no circumstances will I reveal my relay operator number in conjunction with my name, or disclose to anyone the names, schedules or personal information of any fellow CA or supervisor working at the relay service.
9. I understand that the FCC requires me to relay everything that is said by either party even if portions of the conversation are offensive to me personally.
10. In the event of my resignation or termination of my employment, I will continue to hold in strictest confidence all information related to the work I have performed as a relay operator.

I understand further that any of the above breaches in confidentiality will lead to disciplinary action up to and including immediate dismissal.

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Position: \_\_\_\_\_ Date: \_\_\_\_\_

**Violation of Confidentiality**

Hamilton's policy requires immediate termination for any violation of confidentiality. Any Operator or supervisors who, after an investigation have been found to violate the confidentiality rules and regulations, will be terminated immediately.

*(3) Types of calls.*

*(i) Consistent with the obligations of telecommunications carrier operators, CAs are prohibited from refusing single or sequential calls or limiting the length of calls utilizing relay services.*

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*(ii) Relay services shall be capable of handling any type of call normally provided by telecommunications carriers unless the Commission determines that it is not technologically feasible to do so. Relay service providers have the burden of proving the infeasibility of handling any type of call.*

*(iii) Relay service providers are permitted to decline to complete a call because credit authorization is denied.*

Hamilton satisfies these requirements.

Hamilton Relay does not and will not place any restrictions on the length or number of single or sequential calls placed by customers through the relay center. Hamilton Relay will continue to manage its traffic loads in a manner that will not require that customers be asked to call back later.

Hamilton Relay is capable of handling any type of call provided by telecommunications carriers, including 800 numbers, directory assistance, cellular and wireless. For instance, Hamilton is capable of processing non-coin-sent paid calls, sent-paid calls, collect calls, person-to-person calls, including local, intrastate, interstate, and international calls, hotel calls and calls charged to a third party, including from standard (voice), TTY, and wireless phones. Hamilton Relay is also able to process credit cards, any Massachusetts local exchange calling cards and all non-proprietary interexchange company calling cards that are accessed by dialing an 800 number. This includes all major interexchange company calling cards. Relay users simply inform Hamilton Relay's Operators when they want to use an alternate form of billing. The Operator selects the correct billing method from an on-screen menu and the call is then placed. The customer's carrier of choice actually bills the call (based on conversation time) as described previously, for intralata, interlata, and international calls. Hamilton Relay bills no calls and receives no revenue for any toll calls.

### **Coin Sent Paid**

Hamilton Relay is capable of handling any call normally provided by common carriers with the exception of coin sent paid calls. The technology is not available that allows for signaling to be passed so that an Operator can determine when coins have been dropped into the payphone. Furthermore, in FCC Order 90-571, the FCC ordered that coin sent paid calls are not feasible.

Hamilton Relay does not charge relay users who want to place a local call from a payphone as stated in FCC Order 90-571.

Relay users making a long distance call from a payphone are able to use a calling card (debit card, regular calling card, etc.) or place a collect or third-party call. The customer's carrier of choice will then rate and bills any long distance payphone calls. Once billing has been established the call will be processed as a regular relay call. In this manner, all relay users have access to anyone from a payphone.

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**Cellular/Wireless/PCS Phone Access**

Hamilton Relay is capable of processing relay calls that involve pagers, cellular and personal communications services. These services are all part of the Public Switched Network and they are handled just like any other relay call.

Workstations have built-in dual-tone multi-frequency (DTMF) generating capabilities to perform dialing or access functions for relay users. The DTMF software sends tones that activate automated voice systems and pagers. With DTMF capability, Hamilton Relay can navigate voice menus, answering machines, or any other automated system that either record or passes on voice, text, or electronic message to the other party even when using a wireless device.

The relay switch identifies wireless calls with a false automatic number identification (ANI) associated with it and Hamilton Relay processes the call as “no bill” preventing the relay user from having to use alternate form of billing for any toll calls. One exception is when false ANI information is forwarded. Although infrequent, this situation would require the Operator to ask for an alternate form of billing.

**Directory Assistance**

Hamilton Relay gives all relay users access to local, intrastate and interstate directory assistance services via the relay and processes directory assistance requests in the same manner as any other relay requests.

Upon receiving the area code from the relay user, the Operator dials the correct area code plus 555-1212. When reaching the directory assistance operator, the Relay Operator identifies the relay and asks for the city and state the user has given while at the same time keeping the relay user informed. When the correct number has been obtained the call is handled as a regular relay call.

**End User Billing for Directory Assistance**

The relay user can pick which carrier they want to use for directory assistance. The relay user's carrier of choice bills for interlata and intralata directory assistance calls at their tariffed rate. With intralata presubscription, all billing is performed by the customer's carrier. All directory assistance calls are sent to the customer's carrier of choice for processing and billing. Hamilton Relay does not set any rates for long distance or operator-assisted calls since the customer's carrier of choice bills these calls. All directory assistance calls are billed via the customer's underlying carrier.

**Network Access**

Hamilton Relay's system provides for and serves all of the following types of calls.

- (1) Local calls originating and terminating within Massachusetts, including extended area service (EAS) and optional calling plan calls;

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- (2) Intralata, interstate calls which are considered local calls – Billed to the TRS Interstate Fund;
- (3) Intralata calls originating and terminating within Massachusetts;
- (4) Interstate calls that originate within Massachusetts and terminate outside of Massachusetts - Billed to the TRS Interstate Fund;
- (5) Interstate calls that originate outside of Massachusetts and terminate in Massachusetts - Billed to the TRS Interstate Fund; and

Hamilton Relay 800 numbers, including 711, are able to place the call types listed above. Hamilton's service is designed so that all calls made through its relay centers are billed from the originating telephone number to the terminating telephone number as if the call were made directly with no relay intervention. The relay platform stores the necessary information about extended area service and optional calling plan arrangements in Massachusetts so that calls made within an EAS area or optional calling area are not billed to the customer. ANI information appears at the workstation automatically and the terminating number is keyed in by the Operator so that a billing record can be created. For calls originating in areas where ANI information is not forwarded, Hamilton's Operators will key in originating number information.

**Local and Intrastate Relay Calling**

Hamilton Relay provides local and intrastate calling to the users of MassRelay and obtains the necessary information (NPA/NXX) to build a database to identify the difference between local and intrastate calls (this includes expanded local information).

Hamilton contacts local exchange carriers operating in Massachusetts to collect all EAS and local optional calling plan information. Hamilton receives monthly updates of this information. Once this information is gathered, Hamilton updates its database within its switching platform and its toll processing system to identify certain NPA-NXXs as toll-free calling areas. Relay users with access to optional calling plans are not billed any more for calls to the specific optional calling area than if they would have called directly through their local network.

The calling party's ANI is compared to the called number. Hamilton Relay's database determines if it is a local or intrastate toll call and gives the Operator notification if billing information is required. If it is a local call, no billing arrangements are necessary and there are no charges. If it is a toll call, Hamilton sends the call to the customer's carrier-of-choice for billing purposes.

The entire call process and Operator procedures are designed to make the relay center seem invisible. To the relay user, a call looks like it was placed from his or her primary location to the call destination. Relay users do not see or get billed for the "links" going to and from the relay center. Relay users receive no billing for local calls. Intrastate/intralata calls are billed by the customer's carrier, as described further in this Section.

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**Access to Regionally Directed Toll-Free Numbers**

Hamilton Relay allows access to regionally-directed toll-free numbers. Because Hamilton passes Caller ID information, the caller's ANI reflects a Massachusetts number which results in the call being routed to the correct state or regional location. Massachusetts callers with numbers that have been ported from other states will have their calls routed based upon their ANI.

**Access to Restricted Toll Free Numbers**

The service provided by Hamilton Relay allows access to restricted 800 numbers and other special prefixes. Hamilton provides this service today through an incumbent LEC via re-originating dial tone. Hamilton ensures that all of the relay users in Massachusetts have access to all 800 numbers and other special prefixes.

**Access to Businesses with Special Prefixes**

Hamilton Relay understands that some local telephone companies have abbreviated numbers available for services calls. Hamilton will continue to work with LECs to ensure proper routing and will allow MassRelay users to access businesses with special prefixes.

**Extended Area Service**

Hamilton Relay has obtained the needed local calling area information from Massachusetts LECs and routinely updates this information. This includes any EAS and/or local optional calling plan data. This data is collected through letters, telephone calls, and meetings with the LECs in Massachusetts.

Hamilton also makes use of the Terminating Point Master (TPM) from Telcordia to verify LATAs, as well as vertical and horizontal positions, which are necessary elements in determining mileage and jurisdictions. Hamilton uses the TPM to define call jurisdictions by linking the calling and called numbers to geographic data tables that contain NPA-NXX information, identifying intralata, interlata, or local/EAS. The jurisdiction is also defined at the workstation during the actual call. Hamilton updates the TPM file monthly.

**Intralata long Distance, Interstate, and International Calls**

Hamilton Relay provides interstate and international calling to MassRelay users. Interlata (including interstate and international) and intralata long distance toll charges are recorded and billed by the relay users' carrier of choice in the same manner as the carrier bills that customer for direct interlata and intralata long distance calls. On each interlata and intralata call, Hamilton forwards the appropriate information digits, calling number and called number as part of the call information so that the long distance company can bill the customer directly or through their normal billing mechanisms.

When a call has been defined as a long distance call, Hamilton sends this call to its relay switching tandem. The customer's selected carrier code is sent with each call so that the tandem sends the call to the customer's carrier of choice. Each call is identified as a relay call. If a relay user has signed up with his/her carrier of choice for a "relay" discount or the carrier is required to give a relay discount, the carrier will bill the call as a relay call and apply any discounts. MassRelay users will receive one bill from their carrier of choice just like they do for all of their

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direct calls. Hamilton explains this type of billing arrangement through all Outreach and Customer Service activities, in newsletters, relay materials, etc., so that relay users understand how to select a carrier and find the best long distance rates.

The section below (under the heading End User Billing for all Toll Calls) contains a description of how end users are billed for toll calls.

Inbound International Calls

Hamilton Relay provides inbound International calling in which the relay user pays to place a call from an International location to the relay center. Hamilton then places the outbound call to a destination in the United States free-of-charge and relays the conversation for them. All processed International calls are billed to the Interstate TRS Fund Administrator.

End User Billing for all Toll Calls

Interlata (including interstate and international) and intralata and intrastate long distance toll charges are recorded and billed by the relay users' carrier of choice in the same manner as the carrier bills that customer for direct interstate and intrastate long distance calls. On each interlata and intralata call, Hamilton forwards the appropriate information digits, calling number and called number as part of the call information so that the long distance company can bill the customer directly or through their normal billing mechanisms.

Hamilton forwards information on each toll call to the relay user's carrier at the time the relay call actually takes place. The record will contain: the originating and terminating numbers and the call type (e.g., person-to person, collect). Interlata and intralata billing records will be created by the interexchange carrier as a result of the information digits and calling and called number data being sent to the interexchange carrier at the time the call is made. Long distance charges are based on the originating and terminating numbers. The long distance carrier bills are based on conversation time using their own rounding calculations. Hamilton does not pass on session time to the carrier so only conversation time is billed by the carrier. Billing and collection is then the responsibility of the interexchange carrier who carries the call.

Hamilton is a relay provider which is not an interexchange carrier (IXC). The customer's carrier-of-choice actually bills the call (based on conversation time) for intralata, interlata, and international calls. This means that the timing of the call for billing purposes begins immediately upon pickup at the called number. If a caller requests a person-to-person toll call, the timing begins only after the requested person has answered the call. If a relay user has signed up with his/her carrier of choice for a "relay" discount or the carrier is required to give a relay discount, the carrier will bill the call as a relay call and apply any discounts. Hamilton bills no calls and receives no revenue. All billing is performed by the carrier.



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The format of the bill for all toll calls will be determined by the underlying carrier as Hamilton Relay does not bill any relay calls. However, the call digit information will identify the call as a TRS call and will further designate the type of call (i.e. 3rd number call, direct dial call, collect call, and person-to-person call). This will allow underlying carriers to correctly identify each relay call on their bill.

All billing to the relay user is based on minutes of conversation and is processed by the relay user's carrier-of-choice.

Hamilton Relay has the ability to place the following call types:

Bill to ANI	Person-to-Person(PP)
Third Party	PP – Bill to ANI
Collect	PP – Third Party
Calling Card/Credit Card	PP – Collect
Prepaid Calling Cards	PP – Calling Card/Credit Card

**Automated Billing System to Determine Call Jurisdiction**

Hamilton Relay makes use of an automated billing system to determine call jurisdiction in order to appropriately bill the Interstate and Intrastate TRS programs. Hamilton marks on every billing record whether the call is local, EAS, intrastate or interstate. This is done immediately when the call is placed. Hamilton performs a second check of call jurisdiction during the monthly settlement process. By determining the jurisdiction of every relay call twice, Hamilton can guarantee that call jurisdictions are established correctly and that MassRelay will only pay for intrastate relay minutes. In addition to redundant jurisdiction look-ups, Hamilton also accounts for every minute of relay use. This means that all reports must balance at the end of every month in each jurisdiction category. This additional safeguard ensures that all minutes are accounted for correctly.

*(iv) Relay services shall be capable of handling pay-per-call calls.*

Hamilton satisfies this requirement.

**Pay-Per-Call Services**

Hamilton Relay allows relay users to access intrastate and interstate 800 or 900 pay-per-call services in which the company providing the service bills the end-user directly. Hamilton has established the necessary trunking to carriers participating in relay equal access so that the carrier can bill directly for this call. The attached materials include a list of these participating carriers.

Hamilton bills the Interstate TRS Fund and the Massachusetts State 911 Department using the percentage split defined by the Interstate TRS Fund Administrator for 800 and 900 calls. Customers may choose to block 900 calls from being made altogether via forms provided by Hamilton.

*(v) TRS providers are required to provide the following types of TRS calls:  
(1) Text-to-voice and voice-to-text; (2) VCO, two-line VCO, VCO-*

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*to-TTY, and VCO-to-VCO; (3) HCO, two-line HCO, HCO-to-TTY,  
HCO-to-HCO.*

Hamilton Relay provides each of these call types.

**TTY/ASCII to Voice**

Hamilton Relay is able to accept a call from a TTY equipped caller, place a call to a hearing and voice capable caller and translate the voice messages to TTY messages and TTY messages to voice messages in order to complete the communications link.

**Voice Call Processing**

Hamilton Relay is able to accept a call from a hearing and voice capable caller, place a call to a text based caller and translate the voice messages to TTY messages and TTY messages to voice messages in order to complete the communications link.

**Voice Carryover (VCO)**

Hamilton Relay allows VCO users to utilize both TTY modes, acoustic mode and direct connect mode. A variety of VCO call types are also available through Hamilton.

**Two-Line VCO**

Hamilton Relay provides two-line VCO. Two-line VCO capability allows a VCO user to have a more interactive conversation. By using two telephone lines the caller, if they have some hearing available, can listen to their conversation on one line while receiving typed text from an Operator on the other line, thus creating a more natural flow of conversation.

To place a two-line VCO call, the ASCII/TTY user calls relay, connects with an Operator and requests that the Operator make a call to their voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the customer conferences in the third party (the party they want to speak with). Now, the Operator only types what the third party says. The Operator is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place.

**Reverse Two-Line VCO**

Hamilton's two-line VCO feature also works in the reverse when a voice user places a call to a two-line VCO user through relay. It is then called Reverse Two-line VCO.

**VCO-TTY and TTY-VCO**

Hamilton Relay provides this service in which VCO users can call a TTY user (or vice versa) through the relay. The VCO user voices his/her conversation which the Operator types to the TTY user. The TTY user types his/her conversation directly to the VCO user.

**VCO-VCO**

Hamilton Relay provides VCO to VCO service where the Operator types to both parties, saving the VCO users from having to type their part of the conversation.

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**Hearing Carryover (HCO)**

Hamilton Relay allows HCO users to utilize both TTY modes, acoustic mode and direct connect mode. A variety of HCO call types are also available through Hamilton.

**Two-Line HCO**

Hamilton Relay provides this feature. To place a two-line HCO call, the ASCII/TTY user calls relay, connects with an Operator and requests that the Operator make a call to their voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the relay user conferences in the third party via the voice line (the party they want to speak with). Now, the Operator only voices what the HCO user types. The Operator is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place.

**HCO-TTY and TTY-HCO**

Hamilton Relay provides this feature allowing HCO users to contact TTY users (or vice versa) via the relay.

**HCO-HCO**

This service allows two HCO users to contact each other through the relay. Hamilton Relay provides HCO-to-HCO service where the Operator voices to both parties, preventing the HCO users from having to read the other party's conversation.

*(vi) TRS providers are required to provide the following features: (1) Call release functionality; (2) speed dialing functionality; and (3) three-way calling functionality.*

Hamilton Relay provides each of these features.

**TTY-to-TTY (Call Release)**

Hamilton Relay processes TTY-to-TTY calls when it is necessary to go through a voice switchboard first or if the originating TTY user is using a calling card that is accessed by calling an 800 number first. Once the Operator reaches a compatible TTY user when placing a relay call, Hamilton gives the calling party the option to communicate independent of the relay function.

The Operator receives an automated message box with instructions to release the call from the workstation. Once the call has been released from the workstation, the Operator is able to take any other incoming calls.

Using the above procedure, Hamilton provides a call release function to satisfy the FCC requirement, which removes the workstation from the call. If the call is a long distance call, the call is billed as a normal relay call (i.e., the relay user's carrier of choice).

**Voice-to-Voice Call Release**

Hamilton Relay provides a voice to voice call release function, which removes the workstation from the call. If the call is a long distance call, the call is billed as a normal relay call (i.e. the

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relay user's carrier of choice). Once the call has been released from the workstation, the call ceases to be a TRS call and is not subject to the per-minute charge to the State.

**Speed Dialing**

Relay users may choose up to 50 numbers they would like programmed for speed dial. When a Relay user makes a call to a number on their speed dial list, they first connect to the Operator and just tell the Operator, "pls call Mom". Speed dialing is available through the Hamilton Relay customer profile. Please refer to the attached materials for a copy of MassRelay's Customer Profile Application.

**Three-Way Calling**

Hamilton Relay provides three-way calling capability, in which the customer (if the customer has purchased this feature from his/her LEC) can use this feature to either tie the third party directly into the conversation or to tie the third party in by making a second call to the relay center.

*(vii) Voice mail and interactive menus. CAs must alert the TRS user to the presence of a recorded message and interactive menu through a hot key on the CA's terminal. The hot key will send text from the CA to the consumer's TTY indicating that a recording or interactive menu has been encountered. Relay providers shall electronically capture recorded messages and retain them for the length of the call. Relay providers may not impose any charges for additional calls, which must be made by the relay user in order to complete calls involving recorded or interactive messages.*

Hamilton Relay satisfies this requirement.

**Machine Recording Capabilities**

Hamilton Relay's recording function allows the Operator to record a voice announcement and then play back the message at a speed controlled by the Operator. The Operator informs the relay user through the use of a hot key on the Operator's terminal that a recording has been reached, followed by another hot key stating (OPERATOR HERE WOULD YOU LIKE COMPLETE MSG TYPED OR HOLD FOR A DEPT OR LIVE PERSON Q).

If a caller requests a department or live person, the Operator types, "HLDING FOR DEPT/PERSON" and presses the appropriate option when the recording prompts.

If a caller requests listening to the complete message, the Operator sends a hot key that states, "COLLECTING INFO PLS HLD" and the Operator continues to collect the recording.

The message is retained only for the length of the call. This prevents the caller from having to call back several times to get the entire message. Once the originator of the call disconnects, the recording is automatically deleted from the system.

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When Hamilton has to redial to an answering machine, voice mail, interactive voice messaging unit or any other type of recording system, for whatever reason, Hamilton does so without billing the customer for any subsequent long distance relay calls.

*(viii) TRS providers shall provide, as TRS features, answering machine and voice mail retrieval.*

Hamilton Relay satisfies this requirement.

**Answering Machine and Voice Mail Retrieval**

Hamilton trains its Operators to retrieve and relay TTY messages to voice users and voice messages to TTY users from voice processing systems. Hamilton has established the following procedure for its Operators to obtain messages for relay users:

1. The user is informed that the Operator has reached a voice processing system.
2. If the user requests message retrieval, Hamilton obtains the appropriate access codes from the user. Hamilton does not retain access codes or any other information needed to access a voice mail system subsequent to the call. This information is considered “call” information and just like any other call information, is kept confidential.
3. After the voice processing system has been accessed, Hamilton’s Relay Operators begin to relay any messages that have been recorded or leave a message as requested. Hamilton makes use of its advanced recording function to capture this information, as discussed previously.
4. If the Operators must call again to finish relaying any messages, Hamilton Relay Operators do so without billing the end user for subsequent calls.

Hamilton alerts relay users to the presence of a recorded message and/or interactive menu. Hamilton uses hot keys (automatic macros) to announce recordings or interactive messages. Hamilton does not charge a relay user for subsequent calls to a recording or to interactive message.

**Answering Machine Retrieval (Single-Line)**

Hamilton Relay provides this service in which messages from a voice or TTY answering machine or a single line telephone are retrieved by the OPR. The caller requests Automatic Message Retrieval (AMR) or Single Line Answering Machine (SLAM) and plays the messages to the Operator by putting the handset near the speaker of the answering machine. Hamilton records any messages, enabling the Operator to capture the information and type or voice it back to the relay customer. Once the information is relayed to the caller and the call is completed, the recording is automatically erased when the caller disconnects.

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*(4) Emergency call handling requirements for TTY-based TRS providers. TTY-based TRS providers must use a system for incoming emergency calls that, at a minimum, automatically and immediately transfers the caller to an appropriate Public Safety Answering Point (PSAP). An appropriate PSAP is either a PSAP that the caller would have reached if he had dialed 911 directly, or a PSAP that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner.*

Hamilton Relay satisfies this requirement.

**Procedure for Handling TRS Emergency Calls**

Hamilton Relay uses a national Emergency Call Relay Center, operated by Intrado, Inc., to assist with the provisioning of emergency relay calls.

Hamilton utilizes the following procedure to handle emergency calls:

- If the caller has the local emergency number which needs to be accessed, the call is promptly placed and handled in the same manner as any other relay call.
- In the event that a caller does not have the access number to 911 and the emergency appears to be of a nature that time will not permit the caller to hang up and call directly to 911, the Operator will contact the Emergency Call Relay Center (ECRC) which is accomplished through one stroke on the keyboard.
- Simultaneously, the Operator obtains the address from which the person is calling from and selects the “emergency call” box option on the software at the workstation. (A Supervisor assists every 911 call. When an Operator makes this selection, a Supervisor is notified immediately as a flag indicator on the Supervisor Console is activated.)
- Once connected to the ECRC, the Operator will identify as a TTY relay call and relay the location of the caller. (If the Operator does not obtain location information, the Operator gives the ECRC the ANI of the caller.)
- The ECRC immediately transfers the call to the appropriate PSAP center. The ECRC drops off the call once confirming that both parties are on the line and the correct PSAP has been reached. The Operator processes the call as normal.
- Hamilton passes the caller's telephone number to the PSAP when a caller disconnects before being connected to emergency services.

**Back-up Emergency Procedures**

As a back-up to Intrado in the event that Intrado is unable to match the caller with the appropriate PSAP, Hamilton has procedures in place to access its own emergency database:

- The software used by Hamilton takes the NPA/NXX information from the ANI of an incoming call and matches it to information in its database. The ANI indicates what city

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or location a call is coming from. This NPA/NXX information is then cross-referenced to a list of locations in Massachusetts stored in the database. Hamilton has mapped each NPA/NXX in Massachusetts to the appropriate PSAP. Once this search is complete (it only takes a second) the correct emergency telephone number is loaded automatically into the "outdial" box and the Operator can immediately dial the appropriate emergency personnel. This process ensures that Hamilton users have access to the correct and appropriate PSAP.

- Hamilton passes the caller's telephone number to the PSAP when a caller disconnects before being connected to emergency services.
- If the caller is using a cellular or wireless phone, the ANI is not a good indication of where the caller is actually positioned. In this case, the Operator asks for the nearest city name and initiates an automated search for the appropriate PSAP. If several PSAPs are listed for the same city, the Operator will try to identify the correct one with a quick question to the caller.

**FCC Rules for Emergency Calls**

In June 2004, the FCC adopted the definition of "appropriate" PSAP as "either a PSAP that the caller would have reached if he had dialed 911 directly, or a PSAP that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner." Hamilton's database automatically and immediately transfers the caller to the appropriate Public Safety Answering Point based on NPA/NXX information.

The key to providing the best service in emergency situations is to maintain an updated list of Public Emergency Service Answering Point numbers (i.e. 911 centers). Hamilton accomplishes this through two mechanisms to ensure that relay users are connected to the appropriate PSAP:

- 1) through the use of Intrado's 9-1-1 infrastructure; and
- 2) through the PSAP database maintained by Massachusetts' provider.

**TTY-to-TTY Communications Between PSAP and Caller**

Hamilton Relay processes direct TTY-to-TTY communications between the PSAP and the TTY caller.

**If a Caller Disconnects Before Being Connected to the PSAP**

In the event that a caller disconnects before being connected to the PSAP, even if the Operator is unable to get the number of the caller before the call is disconnected, the workstation contains a notification feature that initiates a command to write a record of the ANI calling for emergency assistance. The Supervisor can then access this information if needed, so no matter when the caller hangs up, Hamilton can send ANI information to the 911 center.

During the course of emergency 911 calls, the Operator continually solicits as much information as possible about the nature of the emergency so that in the event that the caller cannot complete



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the call for any reason, the Operator may have an opportunity to seek out the appropriate emergency assistance. The Operator then gives the dispatcher any pertinent information collected on the call even if the originator of the call has disconnected. This includes ANI for the caller so that if the 911 center has “Enhanced 911 Services”, emergency personnel will be able to locate where the person in need is calling from. This allows the PSAP to follow their regular procedures, which is to call back the person calling for help.

The emergency call plan used by Hamilton is listed below. This covers the scenario of a relay user disconnecting before the call is completed. If the 911 call is completed, the Operator will follow normal relay procedures with the assistance of a supervisor and the caller’s ANI is transferred to the appropriate PSAP as described above.

**911 Procedures if the caller disconnects before the emergency call to the PSAP is completed:**

Call the 911 Dispatch number that is listed in the Emergencyfile.txt or the emergency dispatch numbers file ASAP (all of this is immediately available on the Operator's workstation screen). Remember this is a 911 call.

When you reach the 911 dispatch operator use the following steps:

1. **Greeting:** This is “Operator XXXX” from “State” Relay Center. We just received a 911 call that wasn’t completed. The caller uses a TTY and may be Hard of Hearing, Speech Disabled, or Deaf. The ANI is XXX-XXX-XXXX.
2. Ask the 911 dispatch operator if they have a TTY. If they do not proceed to item “3”. Ask if they know how to use the TTY. If they don’t know how to use the TTY proceed to item “3”. If they know how to use the TTY proceed to item “5”.
3. Give the 911 dispatch operator the Voice relay number for the correct state.
4. Ask the 911 dispatch operator if they know how to use the relay.
  - Relay Explanation  
The person you are calling through relay will be typing their conversation and the Operator will read it to you.
5. Ask the 911 dispatch operator for their name or operator number. Record this information on the Operator’s Emergency Call Slip.

Through its outreach programs and outreach materials, Hamilton educates relay users about how to use 911 services. Please refer to the attached materials for MassRelay and Hamilton outreach materials and events. As a part of this information, Hamilton encourages relay users to directly call 911 and to contact their local emergency service personnel using a TTY to ensure that the 911 center will process a TTY call correctly in the event of an emergency.

In addition, Hamilton gives presentations to 911 centers routinely as part of its outreach program. Hamilton provides training and other assistance to emergency dispatchers to ensure TTY calls or relay calls are handled correctly.

*(5) STS called numbers. Relay providers must offer STS users the option to maintain at the relay center a list of names and telephone numbers which the STS user calls. When*



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*the STS user requests one of these names, the CA must repeat the name and state the telephone number to the STS user. This information must be transferred to any new STS provider.*

Hamilton Relay satisfies this requirement.

**Speech-to-Speech**

STS service allows individuals with a speech disability to use his/her own voice or a speech synthesizer when using the relay. STS users are able to communicate with any and all relay users including but not limited to VCO, HCO, TTY, 2LVCO, other STS users or standard phone users. Specially trained Operators process Speech to Speech calls. STS is also available in Spanish.

Hamilton permits its STS Operators to facilitate a call for a user with a speech disability if the user does not oppose the intervention.

Hamilton provides STS users the same profile and all of the features contained within that profile which are currently available to other relay users. Hamilton has a feature that allows all relay users, including STS users, to maintain a list of names and telephone numbers. A relay user simply gives the name of the person to call to the Operator. The Operator repeats the name and states the number of the person to call.

Other than the retention of user-specified list of names and numbers, all STS Operators have the authority, at the request of the STS user, to retain information beyond the duration of a call in order to facilitate the completion of consecutive calls. This information is retained only for the duration of the inbound call. STS Operators retain any important information given by the STS user which might be difficult for the STS relay user to repeat (i.e. credit card numbers, telephone numbers, account numbers, etc.) for use in a subsequent outbound call. Hamilton Relay places a great emphasis on maintaining the confidentiality of relay users. As a result, all information is destroyed immediately upon termination of the inbound call.

Hamilton will transfer this information in the event a new provider is selected.

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**B.     Mandatory Technical Standards**

*§ 64.604(b) Technical standards –*

*(1) ASCII and Baudot. TRS shall be capable of communicating with ASCII and Baudot format, at any speed generally in use.*

Hamilton Relay satisfies this requirement. Hamilton is capable of receiving and transmitting using Voice, Turbo Code, ASCII or Baudot formats, at any speed generally in use. All Hamilton equipment is compatible with industry-wide standards. The modems used by Hamilton can auto-detect the difference between ASCII and Baudot signals within the same modem so that each call is connected correctly.

*(2) Speed of answer.*

*(i) TRS providers shall ensure adequate TRS facility staffing to provide callers with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.*

*(ii) TRS facilities shall, except during network failure, answer 85% of all calls within 10 seconds by any method which results in the caller's call immediately being placed, not put in a queue or on hold. The ten seconds begins at the time the call is delivered to the TRS facility's network. A TRS facility shall ensure that adequate network facilities shall be used in conjunction with TRS so that under projected calling volume the probability of a busy response due to loop trunk congestion shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.*

*(A) The call is considered delivered when the TRS facility's equipment accepts the call from the local exchange carrier (LEC) and the public switched network actually delivers the call to the TRS facility.*

*(B) Abandoned calls shall be included in the speed-of-answer calculation.*

*(C) A TRS provider's compliance with this rule shall be measured on a daily basis.*

*(D) The system shall be designed to a P.01 standard.*

*(E) A LEC shall provide the call attempt rates and the rates of calls blocked between the LEC and the TRS facility to relay administrators and TRS providers upon request.*

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Hamilton Relay satisfies these requirements.

Hamilton answers eighty-five percent (85%) of calls within ten (10) seconds from the time the call enters the TRS system during all times of the day by any method which results in the caller's call immediately placed, not put in a queue or on hold.

Hamilton begins measuring Average Answer time from the moment a Relay call arrives at its relay switch (i.e. in the TRS center's network). As soon as the equipment used by Hamilton accepts the call, call detail records start to capture answer time data. Hamilton measures its timing in seconds and does not utilize rounding. The information reported is taken from Call Detail Records ensuring the accuracy of the data. Each call detail record tracks the amount of time a call waits to be answered. Hamilton's Operators do not answer a call until they are ready to engage the call. Calls in queue or calls receiving the intercept message are not counted as answered. This "queue time" field will be analyzed and reported, but not billed. Abandoned calls are included in the speed of answer calculation.

Hamilton has the ability to monitor speed of answer on a real-time basis via a monitoring system that is accessible to management and supervisors. This information is utilized to make Operator staffing changes throughout the day. Average Answer time is displayed on the Supervisor console. The Supervisor workstation and reader boards in the center indicate if calls are in queue waiting to be answered. The Supervisors are responsible for making sure that when that alert comes up that all available Operator resources are logged in to the system and answering calls. Each of these tracking mechanisms allows Hamilton to respond quickly by adding more Operators immediately.

Daily activity reports used for internal management purposes also track answer performance information for future scheduling. In addition, Hamilton uses a variety of other scheduling techniques to ensure that staffing meets traffic demands. Hamilton makes use of historical data, trending, call patterns and combines that with the knowledge of current events (e.g. football games, weather, Mother's Day, etc.) to anticipate staffing needs.

Hamilton has outstanding answer performance. Average answer seconds for the past year were 1.5 with 94% of calls answered in ten seconds or less.

Hamilton's relay service is designed to a P.01 standard. No more than one call in 100 will receive a busy signal when calling the relay center at the busiest hour. Hamilton defines "blockage" as any call that arrives at the relay switch but is not answered due to the customer receiving a busy signal.

The systems used by Hamilton are designed to prevent blockage. The switches used are high-speed, stand-alone, non-blocking digital switching matrixes. The system is fully redundant to ensure quality and reliable performance, making blockage or any downtime nearly impossible. The system auto-detects any problems and moves to the secondary system immediately if necessary.

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Another measure Hamilton has taken to prevent blocking is to use networks that make use of SONET survivability technology. A primary goal of SONET is survivability. SONET is a self-healing network that recognizes fiber cuts and reroutes traffic before service is interrupted or degraded. All carriers that deploy SONET follow the same set of standards. All of the networks controlled by Hamilton - from the point a relay user picks up the phone in their home or business, through the relay and then back to the other phone being called - are redundant and can survive fiber cuts and other such outages.

Hamilton measures, records and reports its answer performance and blockage rate information to the State 911 Department.

*(3) Equal access to interexchange carriers. TRS users shall have access to their chosen interexchange carrier through the TRS, and to all other operator services, to the same extent that such access is provided to voice users.*

Hamilton Relay satisfies this requirement.

**Equal Access (Carrier-of-Choice)**

Hamilton provides relay users with access to the interexchange carrier of their choice through TRS, and to all other operator services, to the same extent that such access is provided to voice users. Interlata and intralata long distance toll charges are recorded and billed by the relay user's carrier-of-choice in the same manner as the carrier bills that customer for long distance calls made without the relay. On each interlata and intralata call, Hamilton forwards the appropriate information digits (identifying the call as a relay call), calling number and called number as part of the call information so that the long distance company can bill the customer at correct functionally equivalent rate through their normal billing mechanisms. Calling card or credit card billing is handled in the same manner. Hamilton has provisioned the necessary trunks at each of its relay switching tandems for all long distance companies participating in equal access so that they can receive MassRelay traffic. Hamilton offers equal access to all carriers who choose to participate. A list of these carriers is attached.

Hamilton provides relay users with access to all other Operator Services to the same extent as that provided to voice users. Operator services are handled in the same manner as explained above. All operator-assisted calls are sent to the customers' carrier-of-choice for processing and billing.

The type of arrangement explained above gives the control to the relay user. The relay user can pick their carrier-of-choice, receive one bill for all of their calls, and the relay user can shop for the best rates, just like they do today for calls not made through the relay. The relay user can continue to work with one carrier and the relay remains invisible.

The customer profile program used by Hamilton is based on the relay users' ANI that provides automatic connection to the carrier of choice for both interlata and intralata calls made by the relay user. Relay users complete a customer profile with their carrier information and Hamilton adds this information to its database. On each subsequent relay call relay users are automatically

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connected to their carrier-of-choice. Relay users can also notify the Operator of their carrier-of-choice when making a long distance relay call. In the event a relay user elects to change his/her carrier-of-choice, the Operator is able to do so.

Hamilton offers 1010 dial around services through the relay. This service is functionally equivalent to using 1010 services when not placing calls through the relay.

In order to obtain new carriers on its platform, Hamilton contacts all carriers that are requested by MassRelay users to see if they will participate in relay equal access. Hamilton then works through ordering and testing phases with that carrier to ensure that the carrier becomes available to MassRelay users. Hamilton maintains a list of participating long distance carriers and makes this information available to relay users.

*(4) TRS facilities.*

*(i) TRS shall operate every day, 24 hours a day. Relay services that are not mandated by this Commission need not be provided every day, 24 hours a day, except VRS.*

Hamilton Relay provides telecommunications relay service 24 hours a day, 7 days a week.

*(ii) TRS shall have redundancy features functionally equivalent to the equipment in normal central offices, including uninterruptible power for emergency use.*

Hamilton Relay satisfies this requirement.

The facility used by MassRelay has the needed redundancy in switching mechanisms and telecommunication facilities to ensure operation 24 hours a day. MassRelay is operated from an in-state center located in Pittsfield, Massachusetts. MassRelay calls automatically overflow during peak volume times and during any failure of switching or telecommunications facilities to other centers operated by Hamilton. This ensures continuous operation of the MassRelay.

The switches and relay platforms used by Hamilton are located in Louisiana and the Nebraska relay centers. Workstation equipment, database information, and Operators are located in all relay centers. Workstations in the Maryland and Massachusetts centers are controlled by the main processing and switch unit located in Nebraska via digital telecommunications facilities which are redundant T-1 circuits. Workstations in the Massachusetts center are controlled by the main processing and switch unit located in Louisiana via digital telecommunications facilities which are redundant T-1 circuits. All incoming relay calls enter the relay provider's network. Calls can then be connected to workstations in any of the Relay provider's facilities. This all happens instantaneously with no call delays. Calls made to the terminating party exit through the call network as well.

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**Uninterruptible Power**

All relay centers operated by Hamilton Relay make use of an uninterruptible power source with full battery backup to operate each center at full capacity for extended periods of time. In addition, battery back-up systems have the capability to automatically connect to a generator at each of its existing relay centers. The combination of battery and generator back-up allows Hamilton to provide relay service for days and weeks at a time during power outages.

The power system supports the switch system and its peripherals, switch room environmentals (air conditioning/heating, fire suppression system, emergency lights & system alarms), Operator consoles/terminals, Operator work-site and lighting and Call Detail Record recording at each center. Employees are given procedures to follow in the event of emergency. Hamilton provides auxiliary power sources for nine central offices in addition to all its relay centers and has significant experience at purchasing, installing, testing and insuring that such back-up equipment is in place. All of Hamilton's back-up power systems have redundancy features functionally equivalent to the equipment in normal central offices including uninterruptible power for emergency use.

**Switching System**

Hamilton Relay's second generation relay platform makes use of an Excel telecommunications switch. Its switch is a programmable, non-blocking switching system that supports a wide range of digital telephony services. Its open, modular architecture and programmable interfaces allow for simplified and cost-effective application development. The switch supports up to 2,048 ports in a single high-density system. Its components include a matrix CPU, network interface cards, Digital Signal Processing service cards and SS7 packet engine cards. The switch adapts to all standard network and line interfaces, including T-1, E-1, 11, and ISDN PRI.

Hamilton has an InterCall Switch Operating System (ISOS). The ISOS was developed in response to the need to quickly develop applications on the Excel Inc. programmable switching platforms. The ISOS can simply be loaded on a UNIX host, and plugged into the switch to offer basic tandem type switching capabilities including routing and call detail records.

The ISOS is a fully operational basic switch and has great flexibility. Hamilton took advantage of this flexibility and has customized many relay functions in the ISOS operating system.

Hamilton's relay workstation application takes advantage of the power and flexibility of the ISOS operating system. It provides a high level of Operator control processing with complete flexibility to connect any type of call protocol to any other type of call protocol. Hamilton developed a database to maintain a profile of each caller to speed up call connections and to provide information for tailored call processing. The switching systems contain a fully redundant central processing unit on hot standby with automatic failover. This is to ensure that no calls are dropped due to technical failure. It also has a redundant power supply on hot standby. Backup control and database servers are also on hot standby with automatic failover. Hamilton maintains an inventory of spare critical components for the switching system on-site to ensure that the required levels of service are met (listed below).

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The on-sight switching system spare equipment includes:

- D4 channel bank
- All required channel bank cards
- T-1 CSU packs
- Switch T- card
- Switch conference card

If one of the switching systems cannot be returned to service by transferring control to redundant equipment, the calls automatically will overflow to another switching system. The switching systems are designed to provide a very high level of operational security with two fully redundant processors and power supplies in each switch. Each fully redundant control system, which includes keyboard, monitor and printer capabilities, is used to control and monitor each of the switching systems. The control systems provide online system monitoring and real-time programming capabilities that will not take the system off-line and the ability to perform preventative maintenance or repair while the system is online. Remote capabilities are also provided so the system can be remotely monitored, reconfigured or controlled as necessary. All of this is provided to ensure the required levels of service are always met.

Hamilton has made changes to its relay platform in recent years, making use of leading-edge technology. Hamilton has upgraded its switching servers to new hardware that evolved its switching operating system from 32-bit UNIX to 64-bit Linux for more robust hardware support; and tested and deployed new switching control code which allows additional ad hoc reporting capabilities for comprehensive traffic analysis and enhanced failover and recovery. Hamilton has also replaced database servers with new hardware and replaced legacy profile database servers with SQL servers for improved redundancy and database management. Finally, Hamilton has completed a multi-year upgrade of all production workstations to newer, standardized hardware; upgraded workstation operating systems from 16-bit to 32-bit, which provides a higher level of stability; and rolled out several new workstation versions to support a variety of new features.

*(5) Technology. No regulation set forth in this subpart is intended to discourage or impair the development of improved technology that fosters the availability of telecommunications to person with disabilities. TRS facilities are permitted to use SS7 technology or any other type of similar technology to enhance the functional equivalency and quality of TRS. TRS facilities that utilize SS7 technology shall be subject to the Calling Party Telephone Number rules set forth at 47 CFR 64.1600 et seq.*

Hamilton Relay satisfies this requirement.

**Upgrades in Technology/Process in Determining of Technology is Reliable**

Hamilton uses flexible software and hardware (i.e. standard carrier switch, common equipment frames, standard T1 interfaces, windows servers, UNIX operating System, etc.) where components can easily be modified in order to accommodate new technology.

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**Signaling System Seven (SS7)**

The Hamilton Relay platform has made use of SS7 signaling since February 2002. The relay platforms have been retrofitted to deliver Caller ID in the same manner that these services are delivered today in the public switched network (i.e. Hamilton provides Caller ID service where the actual information of the calling party (not the relay center number) appears on the called party's Caller ID box).

*(6) Caller ID. When a TRS facility is able to transmit any calling party identifying information to the public network, the TRS facility must pass through, to the called party, at least one of the following: the number of the TRS facility, 711, or the 10-digit number of the calling party.*

Hamilton satisfies this requirement.

**Caller ID**

Through the use of SS7 signaling, Hamilton Relay provides Caller ID service where the actual information of the calling party (not the relay center number) appears on the called party's Caller ID box. Hamilton provides this information on all call types and on all carriers. Hamilton brings functional equivalence to Caller ID relay users.

Hamilton receives and passes calling line identification information, including blocking information from all users calling through the relay service.



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**C. Mandatory Functional Standards**

*§ 64.604(c) Functional standards —*

*(1) Consumer complaint logs.*

*(i) States and interstate providers must maintain a log of consumer complaints including all complaints about TRS in the state, whether filed with the TRS provider or the State, and must retain the log until the next application for certification is granted. The log shall include, at a minimum, the date the complaint was filed, the nature of the complaint, the date of resolution, and an explanation of the resolution.*

*(ii) Beginning July 1, 2002, states and TRS providers shall submit summaries of logs indicating the number of complaints received for the 12-month period ending May 31 to the Commission by July 1 of each year. Summaries of logs submitted to the Commission on July 1, 2001 shall indicate the number of complaints received from the date of OMB approval through May 31, 2001.*

Hamilton Relay and the Massachusetts Department of Telecommunications and Cable (DTC) satisfy these requirements.

Hamilton Relay tracks TRS complaints and all other customer service activity for Massachusetts. MassRelay maintains a log of consumer complaints alleging a violation of federal minimum standards as it relates to the provisioning of Telecommunications Relay Service and retains the log for the State until the FCC grants the next application for certification.

All complaints made through the toll-free Customer Service number, the customer inquiry form or on-line feedback form, whether in writing or in person, are documented in the Customer Service database. All resolutions are also documented in this database. **All information is kept on file and available to the State and the FCC.** Each database record includes the name and/or address of the complainant, the date and time received, the Operator identification number, the nature of the complaint, the specific relief or satisfaction sought, the result of the investigation, the resolution of the complaint and date of the resolution. The customer service representative responsible for handling the complaint is also indicated. Hamilton reports complaint activity to the State 911 Department on a monthly basis.

Hamilton's complaint log consists of the following database categories:

- Miscellaneous External Complaints
- LEC External Busy
- 911 External Calls
- No Notice of How to Complain to FCC
- OPR Accuracy/Spelling/Verbatim
- OPR Gave Wrong Information

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- OPR Did Not Keep User Informed
- OPR Hung Up on Caller
- OPR Misdialed Number
- OPR Typing Speed
- Didn't Follow Voice Mail/Recording Procedure
- OPR Typing
- Improper Use of Speed Dialing
- Poor Vocal Clarity/Enunciation
- Improperly Handled ASL or Related Culture Issues
- Improper Use of Call Release
- Improper Handling of Three Way Calling
- Caller ID Not Working Properly
- Improper Use of Customer Data
- Fraudulent/Harassment Call
- Replaced Opr Improperly in Middle of Call
- Didn't Follow Emergency Call Handling Procedure
- OPR Didn't Follow Policy/Procedure
- Confidentiality Breech
- Spanish to Spanish Call Handling Problems
- Miscellaneous Service Complaints
- Ringing/No Answer
- Speech to Speech Call Handling Problems
- Connect Time (TTY-Voice)
- Busy Signal/Blockage
- ASCII/Baudot Break-down
- STS Break-Down
- HCO Break-Down
- Relay Not Available 24 Hours a Day
- 711 Problems
- VCO Break-Down
- Miscellaneous Technical Complaints
- Line Disconnected
- Carrier of Choice not Available/Other Equal Access
- CTS Complaints

MassRelay's provider reports complaint activity to the State 911 Department on a monthly basis. In addition, the Massachusetts DTC maintains a log of consumer complaints filed directly with the Massachusetts DTC as well as retains copies of all logs submitted by the MassRelay provider to the State annually. The Massachusetts DTC provides documentation of all of these complaints as part of the annual complaint log filing submitted to the FCC pursuant to the FCC's requirements and has submitted copies of the 2008 through 2012 complaint logs to the FCC.

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*(2) Contact persons. Beginning on June 30, 2000, State TRS Programs, interstate TRS providers, and TRS providers that have state contracts must submit to the Commission a contact person and/or office for TRS consumer information and complaints about a certified State TRS Program's provision of intrastate TRS, or, as appropriate, about the TRS provider's service. This submission must include, at a minimum, the following:*

*(i) The name and address of the office that receives complaints, grievances, inquiries, and suggestions;*

*(ii) Voice and TTY telephone numbers, fax number, e-mail address, and web address; and*

*(iii) The physical address to which correspondence should be sent.*

Massachusetts state contact:

Consumer Division  
Massachusetts Department of Telecommunications and Cable  
1000 Washington Street, Suite 820  
Boston, MA 02118-6500  
Phone: 617-305-3531 and 800-392-6066  
Fax: 617-988-8288  
Email: [consumer.complaints@state.ma.us](mailto:consumer.complaints@state.ma.us)  
Online complaint information:

<http://www.mass.gov/ocabr/government/oca-agencies/dtc-lp/consumer-dtc/file-a-complaint.html>

<http://www.mass.gov/eopss/agencies/massrelay/contact-us.html>

MassRelay provider contact:

Dixie Ziegler  
Vice President of Relay  
Hamilton Relay, Inc.  
1006 12th Street  
Aurora, NE 68818  
Voice/TTY 402-694-3656  
Fax: 402-694-5037  
E-mail: [dixie.ziegler@hamiltonrelay.com](mailto:dixie.ziegler@hamiltonrelay.com)  
Website: [www.hamiltonrelay.com](http://www.hamiltonrelay.com)

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*(3) Public access to information. Carriers, through publication in their directories, periodic billing inserts, placement of TRS instructions in telephone directories, through directory assistance services, and incorporation of TTY numbers in telephone directories, shall assure that callers in their service areas are aware of the availability and use of all forms of TRS. Efforts to educate the public about TRS should extend to all segments of the public, including individuals who are hard of hearing, speech disabled, and senior citizens as well as members of the general population. In addition, each common carrier providing telephone voice transmission services shall conduct, not later than October 1, 2001, ongoing education and outreach programs that publicize the availability of 711 access to TRS in a manner reasonably designed to reach the largest number of consumers possible.*

The Massachusetts TRS program and Hamilton Relay satisfy this requirement.

**Community Outreach, Public Relations and Educational Programs**

Hamilton Relay and MassRelay provide community and business outreach and promote a public awareness campaign to educate all Massachusetts citizens about the relay service. These efforts educate and heighten public awareness of 7-1-1 and TRS throughout Massachusetts through marketing, advertising and community involvement. In compliance with FCC requirements, which call for outreach to all telephone users, MassRelay's outreach initiatives focus on the need to educate the hearing community. As it has been in the past, the primary outreach concern is the number of hearing people who hang up on relay calls. Through participation in promotional events, presentations, workshops and instructional seminars, MassRelay reaches out to all relay user communities and always adjusts its programs to meet the specific needs of every audience.

MassRelay's outreach and awareness efforts specifically target individuals who are deaf, hard of hearing, late deafened, deaf-blind or have difficulty speaking, as well as their family, friends and caregivers. MassRelay performs a variety of activities to inform the public about relay and regularly participates in activities held by Massachusetts organizations that serve relay users.

The outreach team offers informative presentations on the features of relay services to organizations, relay user groups, businesses, educators and students, health care providers, 9-1-1 call centers, emergency, fire and law enforcement personnel, libraries, senior centers, and public and private entities. MassRelay's statewide outreach and awareness efforts include:

- Presentations
- Exhibits
- 911 Education
- Strategies for reaching Hard to Reach Relay Users
  - Hard of Hearing and Elderly Strategies
  - Speech to Speech
  - Deaf Blind
- Outreach to Businesses and Educational Institutions
- Outreach to Spanish

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- Equipment Distribution Programs
- Involvement of Deaf and State Agencies
- Customized Outreach materials
- Promotional Materials
- Variety of Brochures
- Description of Complaint Procedures in Printed Materials
- Bill Inserts and Directory Pages
- Newsletters
- TRS and CTS Web sites
- Social Media
- Press Release and Public Relations
- Print Advertising
- Media Advertising

The attached application materials include copies of outreach materials and activities for Massachusetts.

**Supplemental Information:**

Intrastate MassRelay complaints are processed in the following manner by Hamilton Relay:

Trained personnel located within the State of Massachusetts answer all MassRelay Customer Service calls. MassRelay provides a 24 hour a day, 7 days a week customer service via a toll-free telephone number, accessible from anywhere in the U.S., to assist TTY and voice callers with Massachusetts TRS inquiries and complaints. Customers may also contact MassRelay via e-mail and through the MassRelay web-site; in person; as well as in writing. Any caller to the relay center having a complaint can reach a supervisor or customer service representative while still on line during a relay call. MassRelay processes any complaints, which originate via e-mail, fax, telephone, regular mail, outreach events, at the workstations, etc.

Primary responsibility for processing all inquiries, comments and complaints is Hamilton Relay's Customer Service Department. The National Customer Service Manager, Center Manager and Vice President of Relay Service for Hamilton also view all complaint information.

In the event of a complaint regarding Hamilton, trained staff will follow an established procedure of complaint resolution. This process varies depending on the gravity of the situation.

- A Complaint involving an Operator is directed to the Operator's Supervisor and the Lead Supervisor. Constructive feedback will be shared with the Operator and appropriate coaching, re-training and counseling steps will be taken by the primary Supervisor to resolve the situation. Hamilton's detailed call records show each key command (not actual text) the OPR makes. Hamilton can easily investigate Hamilton OPR complaints and take disciplinary action when needed.

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- Complaints regarding service/procedure issues are directed to the appropriate internal personnel. Technical issues are given to the technical support staff and addressed immediately. Procedural issues are discussed at internal quality meetings.

All complaints are reviewed by the National Customer Service Manager to ensure that any complaints have been resolved to the customer's satisfaction. The Customer Service Team resolves most customer service complaints. If further action is needed, the complaint is escalated to the Vice President of Relay Service for Hamilton, and then to the Massachusetts DTC when needed. All complaints are resolved within 10 calendar days depending on the complexity of the problem. MassRelay describes the above procedures and FCC complaint processes, including contact information for both Massachusetts DTC and the FCC, in appropriate printed outreach material that is distributed to the general public.

If the user is not satisfied with the resolution of the complaint by Hamilton Relay or with any action taken, Hamilton's monthly report to the State 911 Department will so state. The user then has the opportunity and is given written notice of that opportunity by Hamilton to have the complaint and action of Hamilton reviewed by the Massachusetts DTC for such action as it may deem appropriate in accordance with its rules and regulation. The Massachusetts DTC will act on such complaint no later than 180 days from the filing of the complaint.

*(4) Rates. TRS users shall pay rates no greater than the rates paid for functionally equivalent voice communication services with respect to such factors as the duration of the call, the time of day, and the distance from the point of origination to the point of termination.*

Hamilton Relay performs no billing, and Massachusetts users are charged no more for services than those charges paid by standard "voice" telephone users. All local calls are free of charge. All billing is performed by the relay users' carrier-of-choice for both intralata and interlata toll calls. Thus the relay users' carrier-of-choice bills all intralata and interlata toll calls at their applicable discounted rate for relay users. Hamilton forwards the appropriate information digits identifying the call as a relay call to the carrier so that it can be identified as a relay call, rated and billed accordingly by the underlying carrier.

*(5) Jurisdictional separation of costs —*

*(i) General. Where appropriate, costs of providing TRS shall be separated in accordance with the jurisdictional separation procedures and standards set forth in the Commission's regulations adopted pursuant to section 410 of the Communications Act of 1934, as amended.*

*(ii) Cost recovery. Costs caused by interstate TRS shall be recovered from all subscribers for every interstate service, utilizing a shared-funding cost recovery mechanism. Except as noted in this paragraph, with respect to VRS, costs caused by intrastate TRS shall be recovered from the intrastate jurisdiction. In a state*

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*that has a certified program under §64.606, the state agency providing TRS shall, through the state's regulatory agency, permit a common carrier to recover costs incurred in providing TRS by a method consistent with the requirements of this section. Costs caused by the provision of interstate and intrastate VRS shall be recovered from all subscribers for every interstate service, utilizing a shared-funding cost recovery mechanism.*

Hamilton Relay presents the Interstate TRS Fund with a billing statement for all interstate minutes of relay in accordance with the requirements of the Interstate TRS Fund and consistent with FCC rulings. All intrastate minutes of use are reimbursed from the State.

*(6) Complaints —*

*(i) Referral of complaint. If a complaint to the Commission alleges a violation of this subpart with respect to intrastate TRS within a state and certification of the program of such state under §64.606 is in effect, the Commission shall refer such complaint to such state expeditiously.*

*(ii) Intrastate complaints shall be resolved by the state within 180 days after the complaint is first filed with a state entity, regardless of whether it is filed with the state relay administrator, a state PUC, the relay provider, or with any other state entity.*

The Massachusetts DTC will process all complaints referred by the FCC for intrastate Telecommunications Relay Service for the Commonwealth of Massachusetts. The Massachusetts DTC will cooperate in the investigation or resolution of any and all complaints concerning MassRelay program with the FCC.

The Massachusetts DTC will resolve all intrastate complaints within 180 days after the complaint is first filed with the State, regardless of whether the complaint is filed with the state relay administrator, a state PUC, the relay provider or with any other state entity.

*(7) Treatment of TRS customer information. Beginning on July 21, 2000, all future contracts between the TRS administrator and the TRS vendor shall provide for the transfer of TRS customer profile data from the outgoing TRS vendor to the incoming TRS vendor. Such data must be disclosed in usable form at least 60 days prior to the provider's last day of service provision. Such data may not be used for any purpose other than to connect the TRS user with the called parties desired by that TRS user. Such information shall not be sold, distributed, shared or revealed in any other way by the relay center or its employees, unless compelled to do so by lawful order.*

Hamilton Relay satisfies this requirement.

The contract between the State 911 Department and Hamilton Relay provide for the transfer of TRS customer profile data from Hamilton to the incoming TRS vendor. Hamilton will provide

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the above mentioned data to the new vendor at least 60 days prior to the conclusion or termination of the contract.

Hamilton does not and will not use this data for any purpose other than connecting the MassRelay user to his/her called party. Hamilton has not and will never make any relay information available for sale or distribution. Hamilton will not sell, distribute, share or reveal in any way the information referenced above.

**III. CTS Summary and Compliance**

**Captioned Telephone Service (CTS)**

MassRelay, via Hamilton Relay, provides Captioned Telephone service 24 hours a day, 7 days a week, 365 days a year in a manner that is functionally equivalent to traditional voice calls. CTS users place a call in the same way as dialing a traditional phone. As they dial, the CTS phone automatically connects to a captioning service. When the other party answers, the CTS phone user hears everything that is said, just like a traditional telephone call.

**FCC Captioned Telephone Regulations and Waivers**

The FCC has issued a separate Ruling specifically for Captioned Telephone: Declaratory Ruling on August 1, 2003, CC Docket No. 98-67, FCC 03-190 document. In this Ruling the FCC found that captioned telephone VCO service (Captioned Telephone Service is a form of this) is a type of TRS. In addition the FCC waived certain TRS mandatory minimum standards that do not apply to captioned telephone VCO service, and waived other TRS mandatory minimum standards for captioned telephone VCO (see list below). On July 14, 2005, the FCC clarified in its Order of Reconsideration, that Two-Line Captioned Telephone Service is a type of telecommunications relay service eligible for compensation from the Interstate TRS Fund.

Massachusetts's CTS offering meets all FCC minimum standards.

The Declaratory Ruling referenced above serves as the primary source in meeting the existing minimum standards including waivers of the six TRS requirements for Captioned Telephone Services. The FCC issued an order on August 14, 2006 (CG Docket No. 03-123, DA 06-1627 document) making these temporary waivers permanent.

**Captioned Telephone waivers include:**

1. Speech to Speech (STS) and Hearing Carryover (HCO)
2. Operators waivers:
  - TRS mandatory minimum standard requiring Operators to be competent in interpretation of typewritten ASL as applied to Captioned Telephone Operators.
  - Operator oral-to-type test requirement and permit the use of an oral-to-text test instead for Captioned Telephone Operators.
  - Requirement that Operators not refuse single or sequential calls as applied to Captioned Telephone Operators handling outbound Captioned Telephone calls.
  - Gender preference.
  - 60 wpm mandatory typing speed for Operators.



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3. Interrupt Functionality
4. Call Release
5. ASCII and Baudot Format

**Hamilton Captioned Telephone Training**

All Hamilton CTS Operators are required to satisfactorily complete a series of skills assessments to achieve the expertise and knowledge to adequately and accurately caption in a professional manner the words spoken by the hearing party without intervening in the communication between the parties. The evaluation process includes the quality of voice, clarity of speech and correct use of words and sentence structure.

A detailed Operator training plan is in place to ensure that all standards as applied by the FCC to the provision of CTS are met by each CTS Operator. At any time, if a prospective Operator does not demonstrate the ability to achieve the expected standards, they may be removed from the training group.

After initial training, CTS trainees are tested through the administration of timing scripts in a test environment. Each Operator is required to successfully pass two rounds of timings consecutively prior to handling live calls. In addition, trainees are required to meet specified monitor scores when being evaluated on live call processing. CTS Captionists are monitored daily and if a Captionist fails a monitoring, they are not allowed to process live calls until they are able to pass monitoring.

**Hamilton Captioned Telephone Ongoing Training**

All Hamilton CTS Operators receive all necessary ongoing training. Operators are monitored on each shift and if they are found to need additional training or re-training, they are taken off line and given the necessary training. In addition, Operators are retrained on new features and capabilities of the Captioned Telephone service platform including any new or improved voice recognition systems used in the platform.

Operators are tested monthly through the administration of Timing Scripts in a test environment. In addition, Operators are periodically monitored while processing live calls. Only the scores of each Operator are maintained in a database. No other information regarding conversations is kept at any time.

**Hamilton Captioned Telephone Quality Assurance**

One way that quality is measured is through the Operator testing program which requires a proficiency level for CTS Operators of 130 wpm speed of transcription with a 2% or less Error Rate and 98% accuracy requirement in a testing environment.

**Hamilton Captioned Telephone Service Operators adhere to the following minimum standards:**

- The CTS Operator is trained to caption the words spoken by the hearing party as accurately as reasonably possible without intervening in the communications. The Operator is permitted to provide background noise identification;

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- The CTS Operator is required to not maintain any records of conversation content and shall keep the existence and content of all calls confidential;
- The CTS Operator are required to meet the FCC standards for TRS minimum transcription speed;
- The CTS Operator is prohibited from limiting the length of a call and is required to stay with the call for a minimum of ten minutes when answering and placing a call;
- The CTS Operator is required to pass along a CTS caller's ANI to the appropriate PSAP if the caller disconnects before being connected to emergency services; and
- CTS personnel have the requisite experience, expertise, skills, education, knowledge and training to perform CTS services in a professional manner.

**Hamilton Captioned Telephone Confidentiality Agreement**

All Hamilton CTS Operators adhere to strict policies of confidentiality, which comply with all FCC confidentiality requirements. Hamilton collects only that personal information necessary to provide and bill for the CTS service being rendered. Hamilton also prohibits its CTS Operators from intentionally altering a relayed conversation. Following is a Confidentiality Agreement that all Operators are required to sign prior to taking any live calls.

The success of CTS depends on quality and complete confidentiality. All Captionists understand and abide by the confidentiality policy.

Operators do not discuss the contents of captioned calls, any caller identifying factors, calling points, or other information about captioned calls other than what is necessary to train other Operators. The CTS call center is isolated to assure confidentiality standards are upheld. The equipment and structural accommodations made to the Operator workspace ensure the confidentiality of CTS user's calls, and prevent CTS Users on one call from overhearing a Operator processing another call.

**CapTel Confidentiality Policy**

- I will not disclose to any individual (outside of a member of the CapTel management staff) the identity of any caller or information I may learn about a caller (including names, phone numbers, locations, etc.) on any Captioned Telephone call.
- I will not act upon any information received while processing a Captioned Telephone call.
- I will not disclose to anyone the names, schedules, or personal information of any fellow worker at CapTel Inc.
- I will not share any information about Captioned Telephone calls with anyone except a member of the CapTel Inc. management staff in order to investigate complaints, technical issues, etc.
- I will continue to hold in confidence all information related to the work and calls I have performed while at CapTel Inc. after my employment ends.
- I will NOT reveal my Captionist ID number in conjunction with my name unless asked by a member of the CapTel Inc. management staff.
- I will not share with anyone any technical aspect of my position at CapTel Inc. unless

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asked by a member of the CapTel Inc. management staff.

- I will not talk about consumers or call content with any fellow Captionists.
- I will not listen to or get involved in calls taken by fellow Captionists.

I have read the above Confidentiality Policy and understand a breach of confidentiality will result in disciplinary action up to and including termination of employment at CapTel, Inc. I recognize the serious and confidential nature of my position and therefore promise to abide by these guidelines.

Employee Name \_\_\_\_\_

Date \_\_\_\_\_

**Types of Calls**

Hamilton CTS Operators are prohibited from limiting the length of a call and are required to stay with a call for a minimum of ten minutes when answering and placing a call. Hamilton's Captioned Telephone service transmits conversations between callers in real time. Hamilton's Captioned Telephone service is capable of handling any type of call normally provided by telecommunications carriers, except for those types of calls and call functionality that specifically been waived for CTS.

**Change of Captioned Telephone Operator**

Hamilton's CTS Operators stay with a relay call for a minimum of ten minutes.

The situations in which an Operator would change during a call would include:

- 1) More than 10 minutes past scheduled break or lunch time
- 2) More than 10 minutes past the end of a shift
- 3) Operator is observed having extreme difficulty processing the call
- 4) Call has been in progress more than 30 minutes with difficult call content or speed, or 60 minutes or more of an average call

The change of Operator is handled through a supervisor who approves the change, finds an available Operator to exchange, and issues the Call Take Over. When a change occurs, the new Operator is identified to the CTS user. Just prior to the change in Operator a message is sent to the CTS user indicating there will be a change in Operator. After the change, a new message is sent with the new Operator number indicating they have taken over the call. This way the client can choose to stop the standard phone user from talking for a moment until the new Operator is fully in place. The change attempts to take place while the client is speaking so that the least amount of information to caption is lost.

**Dialing 911 in an Emergency – Two-Line Captioned Telephone**

When calling 911 in emergency situations using 2-Line CTS, one line is routed directly to the appropriate 911 center and the second line is routed through the captioning center. This allows the user to receive captions on one line and hear the conversation on the other line. The 911 center receives the caller's ANI information directly from the network in the same way as a non-

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CTS call.

**Dialing 911 in an Emergency – Single Line Captioned Telephone**

When calling 911 in emergency situations, the single line CTS users' call is automatically routed to the appropriate 911 center because the call was placed from the user's home line. 911 calls are **not** routed through the captioning service. This means:

- There are no delays in accessing emergency personnel, as calls are directly connected to a 911 call center.
- Emergency 911 calls are **not** captioned in the same manner that regular CTS calls are because the call is not routed through the CTS Captioning Service.
- The CTS user speaks directly into the handset, as with any other CTS call. The 911 call-taker will hear everything the CTS user says. The CTS user is not able to hear the call taker, but the dispatcher can type instructions on a TTY, which will appear on the CTS display screen.
- Emergency 911 Services will know the ANI of the caller and be able to locate the individual and send appropriate help, based on the location from which the CTS call is placed.

**Captioned Telephone Answer Performance**

Hamilton's MassRelay Captioned Telephone services answers 85% of calls within 10 seconds by any method which results in the caller's call immediately being placed, not put in queue or on hold.

Hamilton ensures that adequate staffing is supplied to provider CTS users with an average answer speed of 85% of all calls answered within 10 seconds on a daily basis including abandons. As an experienced CTS provider, Hamilton communicates with CTI frequently to project future demand so all standards can be met.

Hamilton ensures that services standards relating to answer speed are met including during those times of increases or spikes in call volume. CTI tracks the number of CTS phones distributed to users. Combining this with an average length of each call allows CTI to predict the number of Captioning Assistants that are needed. CTI provides adequate trunking capacity, Operator workstations, personnel staffing, and equipment capacity to meet the current standard of 85% of all calls answered within 10 seconds on a daily basis. Abandoned calls are included in the speed of answer calculation. CTI also has reporting mechanisms and alarm systems to detect and record failures.

Hamilton ensures compliance with the P.01 customary TRS industry standard for blockage. Hamilton commits to ensuring that no more than one call in 100 will receive a busy signal when calling the Captioning Center at the busiest hour.

**Captioned Telephone Facilities**

Hamilton provides its Captioned Telephone service from several locations. CTI's Captioned Telephone Service Relay Centers are located in Madison, WI, and Milwaukee, WI. MassRelay's CTS provider, Hamilton Relay, also processes CTS calls from its own Call Centers located in

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Aurora, Nebraska; Baton Rouge, Louisiana; and Frostburg, Maryland.

Hamilton ensures that the MassRelay CTS service is available 24 hours per day, 7 days per week, and 365 days per year. CTI has the needed redundancy in switching mechanisms and telecommunications facilities to ensure operation 24 hours a day.

Each CTS Center is equipped with redundant systems for power. The CTS Centers utilize a combination of battery backup, commercial UPS supply, and/or auxiliary generator to supply uninterruptible power to the CTS Center for extended periods of time. Redundant systems for power include ACD/telecom switching equipment, call processing servers, data network servers, and LAN gear. Most equipment failures can be corrected without complete loss of service.

The CTS switching system includes a redundant Central Processing Unit (CPU) on “hot stand-by” to ensure that no calls are dropped due to processor failure, a full Maintenance and Administrative Terminal with keyboard, screen and printer capabilities, on-line monitoring, real time programming capabilities which does not take the system off-line, and an inventory of spare critical components which are maintained on site to ensure the required levels of service are met

It is also important to ensure that equipment and technology is tested and upgraded frequently. Hamilton and CTI communicate frequently and review plans to ensure redundancy, including: replacing servers with ones that have lower power requirements, allowing for longer power if back-up power is needed; deploying new servers which allow for more robust monitoring to see any signs of trouble before it would affect call processing; and deploying all servers and core switching gear are on a SONET fiber ring at each location.

**Caller ID via Captioned Telephone**

Hamilton Relay offers FCC-compliant Caller ID services. In particular, Hamilton has been providing Caller ID which passes along the 10-digit number of the person calling.

The actual identity of the Calling Party is presented to the Called Party’s Caller ID box (Caller ID). With Caller ID, the Called Party may not know that they received a call via the Captioned Telephone service. Also if the Calling Party blocks their Caller ID, the Called Party does not receive any Caller ID information, functionally equivalent to a normal telephone call. Caller ID information of the Called Party is shown on the CTS display screen.

**Three-way Calling via Captioned Telephone**

Hamilton Relay provider offers FCC-compliant three-way calling. A standard telephone user can initiate a three-way call to a CTS user. For example, two standard phone users are on a call. The party with three-way calling feature on his/her phone line would hook flash to put the other person on hold, and would then dial the national CTS voice number and enter the CTS user’s telephone number or in the case of a 2-line CTS user, dial the CTS user direct. All three parties would then be joined and the CTS user would receive captions on the call.

With 2-Line CTS, the CTS user can initiate a Three-way call in the same manner that a standard phone user would. The first line works exactly as a regular phone line (able to add another

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caller) and the second line supports the captions.

**Call-Waiting via Captioned Telephone**

Call-waiting is supported by 2-line CTS. When the CTS user hears (or reads in the captions) the “beep” telling him/her a second call is coming in, the party would simply press the FLASH button on their CTS phone. The CTS user’s second caller will be on-line, and the Captioned Telephone user will receive captions of the conversation. The CTS user will still receive captions of their first conversation, if/when they return to the first caller by pressing the FLASH button again.

No charges will be assessed to CTS users for these local exchange non-basic services beyond what the user pays their LEC for these services.

**Speed Dialing via Captioned Telephone**

Hamilton Relay offers speed dialing, which is built into the CTS phone’s Dialing Directory. To use this feature, the CTS user saves the desired phone numbers in the CTS memory. To speed dial a number in memory, the user simply presses the button next to the “Memory Dial/Redial” arrow. A list of saved numbers and the last number dialed is then displayed. The user then presses the button next to the number they wish to dial again and Captioned Telephone dials the number automatically.

**711 via Captioned Telephone**

Hamilton Relay has implemented a procedure for voice-to-CTS that allows voice consumers to call a CTS user by dialing 711 rather than the CTS 800 number. Voice users can use this on a per-call basis or as an option on the Customer Profile.

**Spanish Captioned Telephone**

Hamilton Relay offers Intrastate and Interstate Spanish Language CTS services. Spanish CTS hours are from 7:00 a.m. to 11:00 p.m. Central Time. To use Spanish CTS, the user selects the Spanish option under the menu settings. Once this setting is selected, calls will automatically route to a Spanish captioning Operator. Voice users will dial the Spanish toll-free access number to call a Spanish CTS user and have the call captioned in the Spanish language.

**Using Automated (Touchtone) Systems via Captioned Telephone**

With Hamilton’s Captioned Telephone Service, customers can easily receive and/or leave messages on answering machines or voice mail systems with automated menus.

The CTS user can press the CTS number buttons at any time during a call to make selections. This makes navigating automated systems easy.

The CTS user can press a button as soon as they are ready to make a selection. The captioning service continuously transcribes what is heard regardless of what the CTS user is saying or which buttons they press.

Some automated systems have very short response times which may disconnect the call. If this

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happens, the CTS user will simply hang up and try the call again.

**Leaving Messages on Answering Machines via Captioned Telephone**

CTS user may begin leaving their message as soon as they see “BEEP” on the display screen or hear the recorded greeting end.

If no further information is received, the CTS user may assume their message was recorded. If the answering machine is capable of confirming that a message was left, the CTS user will see the confirmation message on the CTS display.

**Retrieving Voice Mail Messages via Captioned Telephone**

The CTS user simply calls into their voice mail/answering machine system as a remote caller, and follows the voice mail/answering machine prompts to retrieve the messages.

The CTS user can press the number buttons at any time.

**Captioning External Answering Machine Messages via Captioned Telephone**

CTS users can receive captions of voice messages left on an answering machine that is near the CTS phone by playing the messages aloud by following these instructions:

1. With the handset hung up, press the menu button until “Caption External Answering Machine Messages” is displayed.
2. Press the button next to “OK”.
3. Pick up the CTS handset and place the handset mouth piece next to the answering machine speaker. Make sure the handset mouthpiece is close enough to “hear” the messages as they are played aloud.
4. In this mode, the CTS will automatically dial the captioning service. Watch the display to see when a connection is established.
5. Start playing the voice messages aloud on your external answering machine. Watch the CTS display to see captions of the voice messages.
6. Save or delete voice messages directly on the answering machine. When you are finished, hang up the CTS handset. The “Caption External answering Machine Messages” feature will go off automatically.

**Captioned Telephone End User Billing**

CTS users can utilize alternate billing arrangements; for example, collect, third number, person to person, calling card, credit card, and 900 number services.

CTS users are not charged for use of the service. All local calls are provided free of charge to the consumer. All billing is performed by the customer’s long distance carrier of choice. All billing information is routed to the customer’s carrier during the outbound call setup. The carrier provides accurate billing to the customer using the same process used for regular non-CTS calls.

All interstate calls, including out of state long distance and international calls are billed to the Interstate TRS Fund. Jurisdiction information is captured while the call is in progress and recorded in the CDR. This information is passed to the CTS user’s carrier-of-choice during the

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outbound call set-up for accurate billing to the CTS user.

**Captioned Telephone Carrier of Choice**

Hamilton Relay ensures that CTS users will have the ability to access their chosen carrier-of-choice for intrastate or interstate interexchange carrier calls without regard to what CTS phone they may call from to the same extent such access can typically be made by a TRS user (such as using 10-10-XXXX to access carrier of choice).

Hamilton informs CTS users of the need to designate a long distance carrier for long distance CTS calls and the consequences of not making such a designation through a variety of methods including customer service, newsletters, the website, etc.

If a customer needs to make long distance calls with CTS, they must register their existing long distance service or calling plan with CTS Customer Service to ensure that any long distance charges are billed under their current long distance provider.

If they do not register a preferred long distance provider with CTS, any long distance captioned calls they make will be automatically billed by Massachusetts' TRS, default long distance carrier, at their long distance rate (which varies by state). There is no charge to customers for using the CTS captioning service.

Customers can complete a Customer Profile in order to specify their long distance carrier of choice. Customers can also designate their carrier of choice via the CTS website or by calling Customer Service. Customers simply indicate which carrier they want to use.

Hamilton Relay has the ability to accurately determine call jurisdiction information in order to ensure that callers have access to extended community calling plans, optional calling plans and other special situations to the same extent provided by traditional relay service by delivering the call to the user's chosen IXC.

**Directory Assistance via Captioned Telephone**

Hamilton Relay provider offers access to directory assistance to the same extent directory assistance is offered to traditional TRS users. The CTS user's carrier of choice bills for interlata and intralata directory assistance calls at their tariffed rate. All billing is performed by the customer's carrier. The call is then processed like all other CTS calls.



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**APPENDIX A  
HAMILTON SUPPLEMENTAL MATERIALS**

**Massachusetts Features and Functions Summary**

Hamilton Relay provides the following features and services.

**Alpha–Numeric Dialing**

If a relay user gives the CA an alpha-numeric number to dial (i.e. 1-800-HAMILTO), Hamilton OPRs automatically translate and dial the appropriate 10 digit number.

**Answering Machine Retrieval (Single-Line)**

Hamilton Relay provides this service in which messages from a voice or TTY answering machine or a single line telephone are retrieved by the CA. The caller requests Automatic Message Retrieval (AMR) or Single Line Answering Machine (SLAM) and plays the messages to the Communication Assistant by putting the handset near the speaker of the answering machine. The technology records any messages, enabling the Communication Assistant to capture the information and type or voice it back to the relay customer. Once the information is relayed to the caller and the caller disconnects, the recording is automatically erased.

Should Hamilton have to redial to an answering machine, voice mail, interactive voice messaging unit or any other type of recording system, for whatever reason, Hamilton does so without billing the customer for any subsequent long distance relay calls.

**ASCII Split Screen**

The relay platform used by Hamilton is compatible with ASCII software that makes use of “split screens.” Hamilton makes use of split screens for in which the CA’s typing is displayed in one window and the relay user’s typing is displayed in another window on the monitor of the CA workstation.

**Automated Call Routing**

During peak traffic periods, the switching equipment used by Hamilton Relay automatically routes calls to a workstation located in another of their relay centers to ensure the required levels of service are always met. If one of the switching systems is down for any reason, the calls will automatically overflow to another switching system.

**Automated Number Identification (ANI)**

ANI is the telephone number of the originating party. Hamilton utilizes ANI technology on all of its incoming relay circuits. Hamilton’s switching equipment recognizes this information and presents it to the CA workstation. ANI is used to determine call jurisdiction.

**Automatic Connection Mode**

The Automatic Connection Mode feature provides an automatic connection to the relay at the speed of the equipment used by the caller for all callers who have used MassRelay’s services at least one time before. When the first time callers reach Massachusetts’s center, the “self-

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learning” database is updated with the caller’s originating telephone number and the speed or call type at which the user connected to the center i.e. TTY, ASCII or Voice. After the first call, the center’s equipment automatically connects at the correct speed whenever it is connected to that particular telephone number.

**Average Speed of Answer**

Hamilton Relay begins measuring Average Answer Time from the moment a relay call arrives at its relay switch (i.e. in the TRS center’s network). As soon as Hamilton’s equipment accepts the call from the LEC and the public switched network delivers the call to the TRS center, Hamilton starts its call detail record process to capture answer time data. MassRelay **answers** eighty-five (85%) of all relay calls within ten (10) seconds from the time the call enters the TRS system during all times of the day by any method which results in the caller’s call immediately placed, not put in a queue or on hold. Abandoned calls are included in this daily answer performance calculation.

**Background Noises**

Background noise is anything heard by the OPR during a relay call which would normally be known to a hearing person. The TTY user is continually informed of what is going on throughout the call. Hamilton puts this type of information in parentheses.

Hamilton also provides tone of voice information when it has a significant impact on the content, context or intent of the relay call.

**Carrier of Choice**

Hamilton’s customer profile database, based on the relay users’ ANI, provides automatic connection to the carrier of choice (AT&T, Sprint, MCI, etc.) for both interlata and intralata calls made by the relay user in the same manner that voice users have access to preferred carriers.

**Cellular/Wireless Access**

This feature allows relay users to access relay via cellular phones. Hamilton’s call processing for relay cellular calls ensures that relay users will not experience billing problems. Hamilton automatically treats all wireless telephone calls that do not allow direct billing to the ANI as a local call. This prevents the wireless telephone user from having to make alternate billing arrangements.

**OPR Gender ID**

With this feature, Hamilton’s macros automatically identify the CA’s gender with the TTY greeting.

**OPR Gender Preferences**

Upon request, Hamilton’s Relay Operators will switch a call to another Operator who is of the gender requested by the caller. That gender OPR is retained for the user throughout the relay call. Customers can also profile their preferred gender and their call will automatically route to their preferred OPR gender, if an OPR of that gender is available.

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**OPR in-call Replacement**

As a matter of practice, Hamilton does not change Operators during a call. This exceeds the FCC rule that requires an OPR to stay with the call for a minimum of 10 minutes or 15 minutes for STS calls. Even at the end of shifts, over lunch hours and other breaks, Hamilton OPRs stay with a call until it is completed. Hamilton only substitutes an OPR if obscenity is directed to the OPR, a perceived conflict of interest exists or another major emergency exists. A change never takes place until either the calling or called party has completed their part of the conversation (typed or stated GA).

**OPR Typing Speed**

All of Hamilton's Operators must type at least 60 words per minute. MassRelay subtracts all errors to calculate typing speed. This ensures not only fast typists but also ACCURATE typists. The average typing speed of Hamilton's MassRelay Operators is 68.9 wpm with 98% accuracy.

**Courtesy Messages**

Hamilton supplies a courtesy message after three rings, to inform callers that they have reached MassRelay. This courtesy message is transmitted in TTY and voice. Hamilton's courtesy message follows: "You have reached the relay. Please hold for an OPR." If the call has not been answered after 15 seconds, the message repeats as follows, "Please hold for an OPR".

**Customer Profile Database**

MassRelay users may indicate how their calls are handled by including their calling preferences in their Customer Profile. This feature allows Hamilton to customize the relay service for each relay user. Once activated, the customer profile appears on the OPR's screen each time the relay user calls the relay so that the OPR can properly process the call according to the user's preferences.

MassRelay users do not have to use their preset preferences on every relay call. These preferences can be used at the discretion of the relay user on each relay call.

**Customer Profile Security**

Customer profiles are based on ANI or a pre-established ten digit number. This provides a very high level of security and keeps all confidentiality practices intact. The customer profile database can only be accessed internally (the database resides on site and is part of Hamilton's relay platform) and a password and PIN system is used to further secure the data. With this password, the relay user can request changes to the profile at any time.

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**MassRelay Customer Profile Information:**

***Customer Information***

<i>Profile Field</i>	<i>Information Purpose</i>
<b>Name</b>	First & Last Name: used for identification purposes.
<b>Address</b>	Street Address, City, State & ZIP Information used for further contact needs (account verification, service updates, etc.) and emergency services.
<b>E-mail Address</b>	Information used for further contacting client.
<b>Phone Number</b>	Used for profile identification when placing a call, as well as follow up.
<b>Mailing List</b>	Allows the user to choose to be included in the State Relay or Hamilton Relay mailing lists to receive newsletters and other important information regarding Telecommunications Relay Services.

***Personalized Features***

<i>Profile Field</i>	<i>Information Purpose</i>
<b>Profile Security</b>	Password: Secret Word consisting of 4-10 letters and/or numbers. Choosing a Password ensures the Relay User is the only person who can make changes to their profile.
<b>Multi-User Feature</b>	PIN: Secret number 4 digits long. A PIN allows Relay user to have their own profile if more than one relay user living in their household.
<b>Remote Profile Feature</b>	PIN: Allows Relay user to access their customer profile when using the relay from any telephone or web-based computer, in any location.
<b>Language Type</b>	Allows User to select their preferred language. Options include English and Spanish.
<b>Preferred Permanent Connection Mode</b>	Call Handling Options: Allows Relay users to specify how they want their calls answered by the relay. Options include: TTY, VCO, HCO, ASCII, STS, Spanish, Telebraille and Voice.
<b>Preferred CA Gender</b>	Allows Relay users to specify the gender of the OPR that the User prefers for each call.
<b>Long Distance Company</b>	Carrier of Choice: Allows Relay users to select their preferred long distance provider.

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<i>Profile Field</i>	<i>Information Purpose</i>
<b>Translator</b>	When the translator option is selected, the OPR will translate ASL to English and English to ASL for both the TTY user and the voice user unless given other instruction.
<b>No Abbreviations</b>	By choosing “No Abbreviations”, the OPR will type word for word, without using abbreviations.
<b>Slow Type Buffer</b>	Hamilton’s slow type buffer will allow the OPR to type at a normal pace while sending the text to the relay user at rates of text in increments of 5 words per minute. Hamilton OPRs have the ability to turn this feature on or off on a per call basis.
<b>Spell Check Turned Off</b>	By turning spell check off, the Relay user will see mistakes or misspelled words. Spell check is turned on automatically.
<b>Speed Dialing</b>	Relay users may choose up to 50 numbers they would like programmed for speed dial. When a Relay user makes a call to a number on their speed dial list, they first connect to the OPR and just tell the OPR, “pls call Mom”.
<b>Customizable Greetings</b>	Allows Relay users to customize how the OPRs identify relay to the person they are calling; for example, using their first name in the greeting. The profile also allows the relay user to choose to have the OPR never explain relay or never identify the relay to any person called.
<b>Restrictions</b>	Allows the Relay user to select the types of calls to be blocked from their telephone including: long distance, 900, International, Directory assistance, toll-free and Operator assistance calls.
<b>Background Noise</b>	Allows the Relay user to choose whether or not to receive background noise information during their call.
<b>Tone of Voice</b>	Allows the Relay user to choose whether or not to receive voice descriptions.
<b>Long Hold Times</b>	When this feature is selected, the OPR will continue to stay on hold but will not ask the Relay user repeatedly if they would like to continue the call.
<b>User reads slowly</b>	DBS user reads slowly so patience is required
<b>CA speak slowly</b>	Request that OPR talk slowly to patience is required

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<i>Profile Field</i>	<i>Information Purpose</i>
<b>STS Contacts</b>	STS Relay users can add contact information and hours of availability at each location so that a hearing user can ask for the STS user by name and be automatically connected with them in their registered location
<b>STS Messages</b>	Allows STS Relay users to dictate messages. OPRs can save the message in the user's profile for up to 2 hours so that the STS user doesn't have to repeat the information.
<b>Abbreviate Auto Message</b>	This allows the OPR to abbreviate messages when typing recordings or IVRs, allowing the User to receive a summarized recorded message.
<b>Retain Information</b>	This allows the retention of information from one inbound call for subsequent calls.
<b>Open Line/Mute Transmission of STS User</b>	This allows the User to communicate with the OPR privately without the voice user hearing the conversation.
<b>Specific instructions to STS CA</b>	<ul style="list-style-type: none"> <li>• Before dialing, User prefers that the OPR to asks: "Shall I tell the party who is calling?"</li> <li>• User prefers that OPR confirm call handling preferences before dialing requested number</li> <li>• User prefers for callers to ask to call them by name rather than by telephone number.</li> </ul>
<b>Standard message to leave on answering machine</b>	This allows users to identify caller by name, request call back, specify call back number, and provide the relay telephone number.
<b>Notes</b>	Allows the Relay user to provide OPRs with additional information they would like included or known for every call.

**Guide**

<i>Profile Field</i>	<i>Information Purpose</i>
<b>Guide for Understanding your Customer Profile</b>	A guide is included to help the Relay user understand the purpose of each section or to better understand how to complete the profile to best meet their needs.

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**Transfer of Database Information**

Hamilton will transfer all customer profile database information to a new TRS provider at the termination of the contract. Hamilton will transfer this data in a usable format within 60 days prior to its last day of service.

**Remote/Multi-User Profile Feature**

Hamilton's Remote/Multi-User Profile allows relay users to access their profile from any phone or web-based computer, and through any type of relay service, whether traditional relay or Internet Relay.

MassRelay users simply give their telephone number (or pre-established ten digit number) and PIN number to the OPR, to permit the OPR to view the customer's pre-selected preferences. This feature is of great benefit to customers who have more than one relay user living in the household. With Hamilton's Remote/Multi-User Profile, each person can establish his/her own profile. Users who travel are always able to access their profile from anywhere.

**Customer Service**

Hamilton recognizes the importance of responsive customer care and places a large focus on responding to the needs of our customers. Hamilton's Customer service department is very responsive to the needs of its customers and works to resolve all customer issues in a timely manner. Customer Service instructs relay users on how to place relay calls, answers questions about any changes that have been made, assists relay users with billing questions, performs equipment testing, provides a variety of referral numbers to state organizations and schedules one-on-one outreach visits for training purposes or larger outreach activities. Hamilton's Customer Service is available 24 hours a day to ensure customers have constant access to customer support. Hamilton has a separate toll-free number for Customer Service.

**Deaf/Blind Pacing/Slow Typing Requests/Slow Type Buffer**

Hamilton's slow type buffer allows the OPR to type at a normal pace while sending the text to the relay user at rates of text in increments of 5 words per minute. Hamilton's OPRs have the ability to turn this feature on or off on a per call basis.

**Dialed Number Verification**

Hamilton verifies the number to be dialed by voicing it back to the voice user or typing it back to the TTY user (Hamilton uses a hotkey to do this so there is no OPR intervention). In the same hotkey, Hamilton notifies the relay user if they are dialing a local number or toll number. The relay user will see "Dialing Toll (ATT) XXX-XXX-XXXX". Both of these features ensure that the correct number is dialed and gives the relay user an opportunity to notify the OPR if the carrier information is incorrect.

Hamilton's Operators verify all pertinent information, including the number to be dialed, names, proper names, account numbers and dollar amounts.

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**Directory Assistance**

This feature gives all relay users access to directory assistance services via the relay. Hamilton processes directory assistance requests in the same manner as any other relay requests. Upon receiving the area code from the relay user, the OPR dials the correct area code plus 555-1212. When reaching the directory assistance operator, the OPR identifies herself/himself and asks for the city and state the user has given while at the same time keeping the relay user informed. When the correct number has been obtained the call is handled as a regular relay call.

The relay user can pick which carrier they want to use for directory assistance. The relay user's carrier of choice will bill for directory assistance calls at their tariffed rate. With presubscription, the customer's carrier performs all billing.

**Emergency Assistance**

Hamilton provides emergency assistance to all relay users. The key to providing the best service in emergency situations is to maintain an updated list of Public Emergency Service Answering Point numbers (i.e. 911 centers). Hamilton accomplishes this through two mechanisms to ensure that relay users are connected to the appropriate PSAP: 1) through the use of Intrado's 9-1-1 infrastructure and 2) through the PSAP database maintained by Hamilton.

**Emergency Numbers**

MassRelay users can add local emergency numbers to their speed dialing list on their Customer Profile. This feature can save valuable time when time is of the essence. A relay user could simply type call Fire or call 911 and the OPR will automatically dial the appropriate PSAP. Hamilton encourages all relay users to call 911 directly.

**Enhanced Modems**

The modems used by Hamilton can auto-detect the difference between ASCII and Baudot signals within the same modem so that each call is connected correctly. These modems support ASCII connections and have faster ASCII detection capability (3 seconds).

**Error Corrections/Abbreviation Expansion**

To increase typing speed and reduce conversation time, Hamilton utilizes an Error Correction program which automatically checks words to be transmitted against our dictionary of commonly misspelled words. If a misspelled word is found, the Spell Checking software automatically corrects the word before it is sent to the TTY users. While the software automatically corrects any typographical errors of commonly misspelled words, proper nouns are not affected.

The spelling database is continually updated with new words as needed. MassRelay users have seen the benefits as fewer typing errors are seen by the TTY user.

Hamilton also offers a feature that allows OPRs to use common abbreviations which are automatically expanded to the entire word in the transmitted text, which speeds up the transmission of the call.

Hamilton users can specifically request to not use Spell Check or to not expand abbreviations via a customer profile.



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**Hearing Carryover (HCO)**

This feature allows people who have difficulty speaking to place and receive calls. The HCO caller hears the communication directly from their caller without such transmission being processed by the OPR. The OPR then voices any conversation typed by the HCO user to the other party.

Hamilton allows HCO users to utilize both TTY modes, acoustic mode and direct connect mode. A variety of HCO call types are also available through Hamilton.

**HCO-HCO**

This service allows two HCO users to contact each other through the relay. Hamilton provides HCO to HCO service where the OPR voices to both parties, preventing the HCO users from having to read the other party's conversation.

**HCO Permanent Branding**

Hamilton provides this service through its Customer Profile. Customers can choose to be automatically connected to HCO without any OPR intervention at the workstation.

**HCO-TTY and TTY-HCO**

This feature allows HCO users to contact TTY users (or vice versa) via the relay. The OPR will voice the TTY user's typed conversation to the HCO user. The TTY user receives the HCO user's typed conversation directly from the HCO user.

**HCO with Privacy**

Hamilton provides HCO with Privacy upon the customer's request which gives privacy for the standard telephone user talking with an HCO user. The OPR is not able to hear the hearing person's conversation, which goes directly to the speech disabled HCO user. The OPR then voices any conversation typed by the HCO user to the other party.

**Inbound International**

Hamilton provides inbound International calling in which the relay user pays to place a call from an International location to the relay center. Hamilton then places the outbound call to a destination in the United States free of charge and relays the conversation for them. Inbound International calls are billed to the Interstate TRS Fund.

**Intercept Messages**

Hamilton's system provides automated overflow to its other centers which in most instances eliminates the need for intercept messages. However, if the traffic cannot be rerouted for any reason such as multiple circuit failures, the callers will be notified with the appropriate type of intercept messages, which is transmitted in TTY and voice. Minutes of use attributed to accessing intercept messages are not included in the billable minutes.

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**Local Exchange Carrier (LEC) Calling Services**

Hamilton has made its relay service compatible with the network used by telephone companies to provide LEC calling services in a truly functionally equivalent manner. The relay user does not experience any additional costs except to the extent that a relay user is billed for enhanced services by the relay user's LEC (not the TRS provider) or that a three-way call results in two toll calls. Hamilton does not charge the relay user for any special calling services.

- Caller ID (SS7)  
Hamilton's provides Caller ID service through SS7 signaling where the actual information of the calling party (not the relay center number) appears on the Caller ID box. Hamilton provides this information on all call types and on all carriers. Hamilton passes, sends and receives calling line identification information, **including blocking information** from all users calling through the relay service.
- Caller ID (CID) Per Line (Global) Block/CID Per Call Block  
Calling line information is provisioned on the relay customer's line by the LEC. All forms of Caller ID Blocking (Global or per call blocking) pass through on a per call basis with no relay intervention. Because Hamilton makes use of SS7 technology, rather than ISDN, all forms of calling line identification information and blocking features purchased by the LEC are passed through with no relay intervention. Because Hamilton can pass, send and receive calling line identification information, a whole host of other features are available including:
- Call Screening (Call Rejection) (Call Block)  
Call Screening is provisioned on the relay customer's line by the LEC in order to prevent nuisance or unwanted calls. The relay user will simply program his/her phone to block all calls from his/her selected list of phone numbers. If someone calls through relay from one of these numbers on the list, the caller receives a pre-recorded announcement stating the caller is not accepting calls at this time, which the relay will type or voice to the originating caller. Calls from other numbers are not blocked.
- Call Acceptance  
Call Acceptance is provisioned on the relay customer's line by the LEC. Call Acceptance lets a relay user block all calls except those from his/her list of special phone numbers. A relay user can add, delete or change numbers on his/her list at any time. This feature is often used in order to prevent nuisance and solicitation calls. If someone calls through relay from a number not on the list, the caller receives a pre-recorded announcement stating the caller is not accepting calls at this time, which the relay will type or voice to the originating caller. Calls from numbers not on the list are blocked.
- Anonymous Call Rejection  
Anonymous Call Rejection is provisioned on the relay customer's line by the LEC in order to prevent receiving calls that are "blocked" or "private." Relay users who do not want to receive calls from parties who have blocked their Caller ID information can make use of this feature. Callers who have blocked their Caller ID information will receive a

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recording indicating that the called party is not accepting calls at this time which the Communication Assistant will either voice or type to the originating caller.

- Preferred Call Forwarding  
Preferred Call Forwarding is provisioned on the relay customer's line by the LEC. Relay users create a list of numbers that they wish to forward to a new telephone number. All other callers do not forward to the new telephone number. Relay users can add, delete or change numbers on their call forwarding list.
- Unique Flash  
Unique Flash is provisioned on the relay customer's line by the LEC. Relay users create a list of numbers with their own distinctive flash (ring). If someone calls through relay that is calling from a number with a distinctive flash associated with it, the called relay party will hear or see the distinctive flash. The unique flash indicates it's one of the special callers from the individual's list.
- Call Forwarding  
Preferred Call Forwarding is provisioned on the relay customer's line by the LEC. MassRelay users create a list of numbers that they wish to forward to a new telephone number. All other callers do not forward to the new telephone number. MassRelay users can add, delete or change numbers on their call forwarding list.
- Call Trace  
Because all of Hamilton's network is based on SS7 connectivity, customers who have purchased Call Trace through their LEC can make use of Call Trace through relay, which works without relay intervention.
- Last Call Return  
Because Hamilton provides Caller ID service through SS7 signaling where the actual information of the calling party (not the relay center number) appears on the Caller ID box, the customer is able to see the telephone number of their last incoming call. To return the call, the customer simply calls relay and gives the OPR the number on the Caller ID to call back. If the customer does not have Caller ID, Hamilton provides last call return within the duration of the same inbound call.
- Three-Way Calling  
If a three-way call is desired and three-way calling is available from the LEC and the customer has purchased this feature from his/her LEC, the customer can use the feature to either tie the third party directly into the conversation or to tie the third party in by making a second call to the relay center.
- TRS Conference Calling  
In addition to three-way calling, Hamilton also supports conference calling. The customer requests a relayed conference call and the text based relay user gives the number to dial and any access codes required to join the conference call.

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**Local/Extended Area Service**

Hamilton has obtained the necessary information (NPA/NXX) from all Massachusetts LECs to build a database to identify the difference between local, EAS and intrastate calls. This database notifies the OPR if the call being placed is a local call (including areas of EAS). If it is a local call, no billing arrangements are necessary and the data is recorded to calculate session minutes only.

**Machine Recording Capabilities**

The recording function allows the Operator to record a voice announcement and then play back the message at a speed controlled by the Operator. The OPR informs the relay user through the use of a hot key on the OPR's terminal that a recording has been reached, followed by another hot key stating (OPR HERE WOULD YOU LIKE COMPLETE MSG TYPED OR HOLD FOR A DEPT OR LIVE PERSON Q).

If a caller requests a department or live person, the OPR types, "HLDING FOR DEPT/PERSON" and presses the appropriate option when the recording prompts.

If a caller requests listening to the complete message, the OPR sends a hot key that states, "COLLECTING INFO PLS HLD" and the OPR continues to collect the recording.

The message is retained for the length of the call. This prevents the caller from having to call back several times to get the entire message. Once the originator of the call disconnects, the recording is automatically deleted from the system. Keys on the keyboard are used to control the speed of the recording ensuring the message is transmitted accurately by the OPR. This makes the recording function very easy for Operators to use.

**Pagers**

Hamilton handles relay calls that involve pagers and beepers. There is no difference in Hamilton's call processing for text initiated calls made through pagers.

**Regionally Directed Toll-Free Numbers**

Hamilton allows access to regionally directed toll-free numbers. Because Hamilton passes Caller ID information, the caller's ANI will reflect a Massachusetts number which will result in the call being routed to the correct state or regional location.

**Regionally Restricted Toll-Free Numbers**

Hamilton's service allows access to restricted 800 numbers and other special prefixes.

**Reverse Two-Line HCO**

Two-line HCO works in the reverse when a voice user places a call to a two-line HCO user through relay. It is then called Reverse Two-line HCO.

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**Reverse Two-Line VCO**

Two-line VCO works in the reverse when a voice user places a call to a two-line VCO user through relay. It is then called Reverse Two-line VCO.

**Spanish to Spanish Relay and Spanish to English Translation**

Hamilton provides Spanish Relay services.

Hamilton provides Interstate Spanish to Spanish, meeting the FCC requirement. Hamilton bills all Interstate minutes to the Interstate TRS Fund.

In addition, Hamilton provides Intrastate Spanish to Spanish, Spanish to English and English to Spanish call handling.

The Massachusetts Spanish 800 number is associated with a separate queue for Spanish 800 calls which are directed to a separate queue so that calls flow immediately to Spanish speaking OPRs. If a relay user calls another 800 number, Hamilton has the ability to transfer the call to a Spanish speaking OPR. In addition, relay users can select “Spanish” as an option on Hamilton’s Customer Profile. This information is presented to the OPRs at the workstation for proper call processing.

OPRs fluent in the Spanish language are scheduled for all shifts, 24 hours a day, seven days a week.

Hamilton processes all the same call types on its Spanish lines as it does on its English voice and TTY lines, including TTY, VCO, HCO, ASCII, STS and 900 calls.

**Speech Difficulty Indicator**

HCO users can indicate in the customized greeting section of their profile that they have difficulty speaking. For example, when an HCO user places a call to a TTY user, the OPR will inform the TTY user that the caller has difficulty speaking. An indicator will appear in the Notes section of the OPR workstation. OPRs will uniformly recognize an “s” typed by a TTY user at the beginning of a call to indicate that the caller has difficulty speaking.

**Speech to Speech (STS)**

Hamilton’s STS service allows individuals who have difficulty speaking to use his/her own voice or a speech synthesizer when using the relay. Specially trained OPRs process Speech to Speech calls. Hamilton gives STS users access to the same profile and all of the features contained within that profile which are currently available to other relay users.

**Speech to Speech/Spanish**

Hamilton’s STS service is also available in Spanish. Relay users can select “Spanish” and “STS” as an option on Hamilton’s Customer Profile.

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**Speech to Speech/Voice Carry Over (VCO)**

STS/VCO is designed for people who are hard of hearing or Deaf and have difficulty speaking. The relay user can make or receive phone calls through the relay through a Speech to Speech OPR using his/her own voice or voice synthesizer and read everything said by the voice caller on a TTY or VCO telephone.

**STS to other TRS Communication Modes**

Hamilton also allows STS users to place calls to people who use a TTY or other TRS communication modes such as VCO, HCO or to another person who has difficulty speaking. Speech to Speech can be used a variety of ways:

- Two hearing individuals, with the OPR repeating the words of the person who has difficulty speaking.
- Two individuals who have difficulty speaking with the OPR repeating both persons' words.
- A VCO user and a hearing person, with the OPR repeating the words of the VCO user if the hearing person does not understand the user's speech and with the OPR typing what is said by the hearing person to the VCO user.
- A TTY user and a person who has difficulty speaking without a TTY, with the OPR typing the words of the person who has difficulty speaking to the TTY user.
- Hearing Carry Over with the person who has difficulty speaking typing what they would like to say and the Operator voicing it to the hearing user.
- Hearing Carry Over in combination with Speech to Speech.

**Three-Way Calling**

Hamilton provides three-way calling capability, in which the customer (if the customer has purchased this feature from his/her LEC) can use this feature to either tie the third party directly into the conversation or to tie the third party in by making a second call to the relay center.

**Toll Discounts**

Hamilton's Customer Service Representatives discuss carrier of choice with relay users and direct them to other telephone numbers to access more information from particular carriers. Hamilton maintains a list of participating long distance carriers and telephone numbers and helps the customer shop for the best toll discounts through relay that match their calling style.

**Transfer Gate Capabilities**

If a relay user calls 711 or the TTY relay access number and requests another service (such as STS, Spanish, etc.), Hamilton has the ability to transfer the call to the appropriate workstation for call processing.

**TTY to TTY (Call Release)**

Hamilton processes TTY to TTY calls when it is necessary to go through a voice switchboard first or if the originating TTY user is using a calling card that is accessed by calling an 800 number first. Once the OPR reaches a compatible TTY user when placing a relay call, Hamilton gives the calling party the option to communicate independently of the relay function. If the

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calling party agrees to do so, the OPR will drop out of the call. If the call is a long distance call, the call will be billed as a normal relay call (i.e. the relay user's carrier of choice).

Hamilton provides a call release function to satisfy the FCC requirement which removes the workstation from the call.

**TTY to TTY (Call Release)**

Hamilton processes TTY to TTY calls for Relay users, in which the OPR remains on the line until both parties have disconnected.

**Turbo Code**

Hamilton provides Turbo Code which is a proprietary alternate protocol developed by Ultratec. This protocol is faster than Baudot (Turbo Code is similar to "real-time") and does not have the limitation of ASCII. Turbo Code also allows for "interrupt" capability while one party is still typing. The modems used by Hamilton auto-detect the end-user's equipment for Turbo Code. If Turbo Code is found, Hamilton automatically connects in "Turbo Code" to the relay user. MassRelay users are able to automatically connect "Turbo Code" on every relay call type.

Hamilton has an automatic identification of connection speed system within its relay platform. This feature provides automatic connection at the speed, including Turbo Code, of the equipment used by the caller for any caller who has used Massachusetts's Relay Services at least one time before. Our switch has a "self-learning" database which is updated the first time callers reach our center with their originating telephone number and the speed at which they connected to our center.

**Two-Line HCO**

To place a two-line HCO call, the ASCII/TTY user calls relay, connects with an OPR and requests that the OPR make a call to their voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the relay user conferences in the third party via the voice line (the party they want to speak with). Now, the OPR only voices what the HCO user types. The OPR is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place.

**Two-Line HCO/Speech to Speech**

This option works the same as a 2-Line HCO call but is processed by a specially trained STS OPR. The 2-Line/STS user can choose between voicing their own conversation or having the OPR voice the conversation for them. If the HCO user chooses to voice his/her conversation and becomes tired or is having difficulty being understood, he/she can type his/her part of the conversation and call on the OPR to "re-voice" as needed. The HCO user can switch between voice and typing at any time during the call.

**Two-Line VCO**

Two-line VCO capability allows a VCO user to have a more interactive conversation. By using two telephone lines the caller, if they have some hearing available, can listen to their

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conversation on one line while receiving typed text from an OPR on the other line, thus creating a more natural flow of conversation.

To place a two-line VCO call, the ASCII/TTY user calls relay, connects with an OPR and requests that the OPR make a call to their voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the customer conferences in the third party (the party they want to speak with). Now, the OPR only types what the third party says. The OPR is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place.

**Voice Carryover (VCO)**

Voice Carryover (VCO) provides people who can communicate with their voice but have difficulty hearing, the ability to place or receive calls. The VCO caller speaks his or her own message directly to the caller without such transmission being processed by the OPR. The OPR then types any conversation spoken to the VCO user so it can be read on the TTY. Hamilton allows relay users to request VCO services without the normal TTY transmission that is typically required. A VCO user can connect voice and say “VCO” and Hamilton connects the call. Voice users do not hear tones during a VCO call.

Hamilton allows VCO users to utilize both TTY modes, acoustic mode and direct connect mode. A variety of VCO call types are also available through Hamilton.

**VCO-HCO and HCO-VCO**

Hamilton provides this service to VCO and HCO users who call another HCO or VCO user through the relay. The VCO user voices his/her conversation directly to the HCO user. The HCO user’s typing goes directly to the VCO user.

**VCO Permanent Branding**

Hamilton provides this service through its customer profile. Customers who always want to connect VCO are automatically connected to VCO without any OPR intervention at the workstation.

**VCO-TTY and TTY-VCO**

Hamilton provides this service in which VCO users can call a TTY user (or vice versa) through the relay. The VCO user voices his/her conversation which the OPR types to the TTY user. The TTY user types his/her conversation directly to the VCO user.

In addition, Hamilton provides VCO to TTY or ASCII services as well as all other combination of call types involving VCO.

**VCO-VCO**

This service allows two VCO users to contact each other through the relay. Hamilton provides VCO to VCO service where the OPR types to both parties, saving the VCO users from having to type their part of the conversation.



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**VCO with Privacy**

Hamilton provides VCO with Privacy upon request in which the OPR will not hear the caller speaking through the relay and will only type voiced responses back to the VCO user.

**Voice Gender ID**

Hamilton's OPRs indicate to the TTY user the gender of the non-TTY relay user at the beginning of the call – (M) Male, (F) Female or (Child) Child. If the OPR is absolutely not sure, the OPR will type (?).

Hamilton's OPRs also indicate to the TTY user when another voice person has become involved in the call. Hamilton identifies the gender of the new party involved in the call immediately.

**Voice to Voice Call Release**

Hamilton provides Voice to Voice call release which allows a hearing user to connect to another hearing user via the Relay. This usually happens inadvertently. Rather than blocking the call, this feature allows the OPR to be "released" from the telephone line without triggering a disconnection between two hearing users. The OPR releases the call after the OPR connects the originating hearing caller to the hearing called party.

**1010 Numbers**

Hamilton offers 1010 dialing through relay. This service is functionally equivalent to using 1010 services when not placing calls through relay.

**7-1-1**

All services available from Hamilton are accessible through 711 including Speech to Speech. Hamilton meets all the same general requirements set forth for all relay calls when 711 is dialed rather than an 800 number.

**Pay-Per-Call Services**

The relay platform used by Hamilton allows relay users to access intrastate and interstate 800, 900 and pay-per-call services in which the company providing the service bills the end-user directly. Hamilton has established the necessary trunking to the carriers participating in relay equal access so that the carrier can bill directly for this call.

A relay user calls the TTY relay number and gives the 800 or 900 number to the OPR. The OPR places the call as usual and begins relaying the call. On all 900 numbers, Hamilton OPRs type the dollar amount per minute associated with the call to the TTY user and asks him/her if he/she want to continue the call before charges begin. This is the point in which callers can disconnect without being charged. The calling party is billed for the call by the 900-service provider or the carrier, whichever is appropriate.

Because no 900 blocking information is automatically passed to Hamilton from the LEC, the provider relies on customer profile data as the only resource for this information. However, if a LEC were to contact the provider with this information, that resource would be used to block 900 access.

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Customers who do not want 900 calls made from their telephone line through the relay, can complete a customer profile form. The customer profile contains an option that will block 900 calls made through the relay. This prevents anyone from calling a 900 number from that particular telephone line. If someone tries to call a 900 number through the relay from a line that has a block on it, the OPR will receive notification at the workstation that this call is blocked and will not be able to place the call.

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**APPENDIX B  
HAMILTON SUPPLEMENTAL MATERIALS**

<b>Massachusetts Relay Outreach Activities 2011</b>		
<b>Date:</b>	<b>Activity</b>	<b># people</b>
7-Jan	Golden Age Center, Charlestown, MA	22
9-Jan	ALDA meeting, Mansfield, MA met with 5 people after meeting	
20-Jan	Hear Boston, Boston, MA	8
24-Jan	1:1 visit Medfield, MA (CTS info and Mass EDP)	
27-Jan	1:1 visit Framingham Senior Center Framingham, MA (CTS info and Mass EDP)	
3-Feb	Meeting with South Shore Elder Services Quincy, MA	
9-Feb	Presentation- Keystone Assisted Living – Springfield, MA	12
16-Feb	Presentation- South Boston Neighborhood House- South Boston, MA	22
17-Feb	Presentation- North End Senior – Fall River, MA	40
23-Feb	Easter Seals – Boston, MA with Mass EDP	7
24-Feb	Adult Day Health Mt. Sinai Hospital- Stoughton, MA	12
9-Mar	State House Deaf-Blind Awareness Day in Boston, MA	
5-Mar	Beverly Chamber of Commerce Health and Wellness Fair exhibit in Peabody, MA	500+
15-Mar	St Joseph's Manor Adult Day Health Program presentation in Stoughton, MA	40
19-Mar	Berkshire Disability Pride Day exhibit in Lanesborough	200+
22-Mar	Flint Portuguese Senior Center presentation in Fall River	20
23-Mar	Field Visit Brockton VA Medical Center in Brockton, MA	
23-Mar	South Main Street Senior Center presentation in Fall River, MA	13
24-Mar	Parkinson's Support Group Forum in Holyoke, MA	
25-Mar	Andover Senior Center presentation in Andover	11
26-Mar	Cape Cod HLAA presentation in Dennisport, MA	15
29-Mar	Ad-Lib Independent Living Center presentation in Pittsfield, MA	8
30-Mar	Niagra Senior Center presentation in Fall River	45
31-Mar	Museum of Science RFB training presentation	25
1-Apr	Northeastern ASL Festival w/Mass EDP exhibit in Boston, MA	300
2-Apr	Parkinson Support Group presentation in Hadley	6
7-Apr	Meeting with South Shore Elder Services Support Group in Quincy, MA	
9-Apr	DEAF Inc Health Fair exhibit in Boston	200
11-Apr	Parkinsons Support Group presentation in Martha's Vineyard	9
11-Apr	MV Community Services presentation in Martha's Vineyard	7
16-Apr	Parkinson's support group w/ Mass EDP in Newton MA	9
18-Apr	Arbor Assisted Living presentation in Amherst	10
19-Apr	Worcester Senior Center Field Visit in Worcester, MA	
20-Apr	Wakefield Senior Center presentation in Wakefield, MA	3
20-Apr	HLAA of Greater Boston presentation in Everett, MA	11
27-Apr	Easter Seals presentation in New Bedford, MA	3
27-Apr	Cape Cod and Islands Elder Services Field Visit in Pocasset, MA	
29-Apr	ABCD Grandparent program in Quincy, MA	11
6-May	Field Visit, Veteran's Hospital, Chelsea, MA	
10-May	Exhibit, South Shore Elder Services Conference, Randolph, MA	100
13-May	North Shore Independent Living Center, Salem, MA	6
16-May	NE Sinai Parkinson's Group, Stoughton, MA	13

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17-May	Council on Aging, Mashpee, MA	3
18-May	Caregiver's Support Group, Scituate, MA	6
18-May	Field Visit Duxbury Senior Center, Duxbury, MA	
19-May	Better Hearing and Speech Month Award, Boston, MA	
24-May	Exhibit, American Health Resources, Brockton, MA	600
25-May	AAA of Pioneer Valley Call Center, West Springfield, MA	21
2-Jun	Field Visit South Shore Speech, Bridgewater	
5-Jun	New England Bionic Ear Meeting, North Andover Exhibit	18
6-Jun	Presentation Springfield Parkinson's Group, Springfield	15
7-Jun	Field Visit Barnstable Senior Center, Hyannis	
7-Jun	Presentation, Nantucket Cottage Hospital, Nantucket	12
15-Jun	Braintree Rehab Hospital Aphasia Group, Braintree	20
21-Jun	Easter Seals, Worcester	4
22-Jun	Field Visit Old Colony Senior Task Force, Boston	
24-Jun	Field Visit, Harper Senior Ctr, Williamstown	
24-Jun	Field Visit, Sister's Providence Retirement Home, Holyoke	
24-Jun	Parkinson's Support Group, Williamstown	10
30-Jun	Veterans Affairs Outpatient Clinic, Boston	
7-Jul	Field Visit, Burlington COA, Burlington, MA	
8-10-Jul	8th Biennial Coch Implant Convention w/EDP- Sturbridge, MA	600+
11-Jul	Field Visit, South Boston Neighborhood Senior Center- South Boston, MA	
13-Jul	One on One, CTS Customer- Quincy, MA	
15-Jul	Presentation, Quincy Career Center- Quincy, MA	6
19-Jul	Presentation, Northfield Senior- Northfield, MA	16
20-Jul	Presentation, NE Sinai Adult Day Health Program- Stoughton, MA	20
20-Jul	Field Visit- Stoughton Council on Aging- Stoughton, MA	
3-Aug	Meeting with Acoustic Neuropathy Association Support Group Facilitator	
4-Aug	One on One Visit, Framingham Learning Center, Framingham, MA	
4-Aug	Field Visit- Carmel Terrace Assisted Living, Framingham	
16-Aug	Presentation- Abington COA w/EDP, Abington, MA	15
19-Aug	Presentation- Advanced Audiology, Mashpee, MA	4
19-Aug	Field Visit- Community Care Adult Day Health Care, Mashpee, MA	
22-Aug	ABCD Senior Services staff meeting, Boston	8
23-Aug	Mayflower Senior Center, Springfield, MA	5
23-Aug	Field Visit- Stavros Independent Living, Springfield, MA	
26-Aug	One on One with CTS Customer, Quincy, MA	
31-Aug	Umass Boston Ross Disability Student Services, Boston, MA	
8-Sep	Presentation- Marblehead COA- Marblehead, MA	4
10-Sep	Exhibit- Pepperell Town Safety Day- Pepperell, MA	200+
13-Sep	Presentation- Adams COA- Adams, MA	12
13-Sep	Field Visit- Catholic Charities- Worcester, MA	
16-Sep	Presentation- Acton COA- Acton, MA	18
22-Sep	Exhibit- Senior Networking Expo- Randolph, MA	150
23-Sep	Exhibit- Assistive Technology Expo- Boston, MA	1500
27-Sep	Presentation- Pine Point COA- Springfield, MA	18
28-Sep	Exhibit- Maynard 911 Facility Open House with EDP	
4-Oct	Topsfield Fair, Topsfield MA, Exhibit	25
5-Oct	25th Anniversary Event, Boston, MA Exhibit	60

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6-Oct	MCOA Conference w/EDP, Sturbridge, MA Exhibit	150+
13-Oct	Brigham House Assisted Living, Watertown, MA Presentation	13
16-Oct	Walk for Hearing, Boston, MA	100+
18-Oct	Brockton COA, Brockton, MA Presentation	3
19-Oct	Community Resource Day, Quincy, MA Exhibit	25
20-21-Oct	Clarke Mainstream w/EDP, Springfield, MA Exhibit	100+
25-Oct	Williamstown COA w/EDP, Williamstown, MA Presentation	14
25-Oct	Mass College of Liberal Arts, North Adams, MA Field Visit	
27-Oct	Mass ALFA w/EDP, Worcester, MA Exhibit	100+
29-Oct	ALDA meeting DAW Award presentation, Lexington, MA	14
1-Nov	Presentation- Belmont COA, Belmont, MA	13
3-Nov	Field Visit- Bunker Hill Community College Disability Center, Charlestown, MA	
4-Nov	Exhibit-MA State Association for the Deaf Conference, Framingham, MA	100
15-Nov	Exhibit- Transition Night Braintree High School, Braintree, MA	15
16-Nov	Presentation- Lynn COA, Lynn, MA	4
17-Nov	Exhibit- COA Acton Health Fair, Acton, MA	20
22-Nov	Presentation- ANA Support Group, Boston, MA	12
30-Nov	Field Visit- Weston Community Center, Weston, MA	
30-Nov	Presentation- Holyoke Soldier's Home w/ EDP	8
5-Dec	Field Visit- North Shore Community College Disability Center, Lynn, MA	
5-Dec	Field Visit- Revere Council on Aging, Revere, MA	
6-Dec	Field Visit- Massasoit Community College Disability Center, Canton, MA	
6-Dec	Field Visit- Canton Council on Aging, Canton, MA	
9-Dec	Field Visit- Kit Clarke Senior Services, Dorchester, MA	
13-Dec	Presentation- Norfolk County Commissioner's Office, Dedham, MA	15
15-Dec	Field Visit- Don Orione Manor Home for Elders, East Boston, MA	
22-Dec	Field Visit- El Fuente del Vida Adult Day Health Center, Hyde Park, MA	
28-Dec	Presentation- Worchester Elder Services w/EDP, Worchester, MA	50
28-Dec	Field Visit- Worchester Family Medical Center, Worchester, MA	

**Massachusetts Outreach Activities 2012**

<b>Date:</b>	<b>Activity</b>	<b># people</b>
6-Jan	Field Visit, Beverly Council on Aging, Beverly, MA	
6-Jan	Field Visit, Beverly School for the Deaf, Beverly, MA	
6-Jan	Presentation, Beverly Parkinson's Support Group, Beverly, MA	8
8-Jan	ALDA Brunch and meeting	
12-Jan	Outreach meeting with EDP, MCDHH, MCB and Verizon	
18-Jan	Quincy Senior Center, Quincy, MA	15
19-Jan	Seniority and Senior Services Adult Day Health Center, Springfield, MA	
19-Jan	One on One visit, CTS customer, Springfield, MA	
23-Jan	One on One visit, CTS customer, Saugus, MA	
23-Jan	Saugus Council on Aging meeting, Saugus, MA	
24-Jan	Presentation, Hubbardston COA, Hubbardston, MA	8
25-Jan	Presentation, Wrentham Senior Center, Wrentham, MA	18
25-Jan	Meeting, Pont View Home, Wrentham, MA	
31-Jan	Meeting, Golden Age Center, Charlestown, MA	
2-Feb	Field Visit, Armed Forces Career Center, West Springfield, MA	

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8-Feb	Field Visit, Overlook Assisted Living, Charlton, MA	
8-Feb	Presentation, Charlton Council on Aging, Charlton, MA	21
10-Feb	Field Visit, Medford VNA, Medford, MA	
16-Feb	Field Visit, Visiting Nurses Assisted Living, Somerville, MA	
17-Feb	Field Visit, El Centro Presente, Somerville, MA	
17-Feb	Field Visit, Community Rehabilitation, Medford, MA	
21-Feb	Field Visit, Landmark Assisted Living, Boston, MA	
21-Feb	Meeting, La Alianza Hospana Adult Day Health and Community Center, Boston, MA	
24-Feb	Field Visit, Cambridge Veterans Services, Cambridge, MA	
24-Feb	Field Visit, Cambridge Senior Center, Cambridge, MA	
27-Feb	Field Visit, Cape Cod Community College Disability Center, Barnstable, MA	
27-Feb	Presentation, Buzzard's Bay Council on Aging, Bourne, MA	7
29-Feb	Presentation, Woburn Council on Aging, Woburn, MA	40
2-Mar	Field Visit, New England Sinai Rehabilitation Hospital, Stoughton, MA	
3-Mar	Presentation, Brain Injury Group, Boston, MA	50
3-Mar	Exhibit, Salem Chamber of Commerce, Danvers, MA	200
5-Mar	Presentation, Adult Day Health Center, YMCA, Stoughton, MA	20
6-Mar	Exhibit, MCDHH State House event, Boston, MA	150
12-Mar	Presentation, Winthrop COA Presentation, Winthrop, MA	6
13-Mar	Field Visit, Interim Healthcare, Lenox, MA	
13-Mar	Presentation, Western Massachusetts Elder Services, Holyoke, MA	30
19-Mar	Field Visit, Interim Healthcare, Lenox, MA	
19-Mar	Presentation, Lenox COA, Lenox, MA	5
20-Mar	Field Visit, American Legion Veterans Post, Acushnet, MA	
20-Mar	Presentation, Acushnet COA, Acushnet, MA	6
22-Mar	1:1 Visit, CTS, Saugus, MA	
22-Mar	Outreach Meeting with MCDHH, MCB and Verizon	
26-Mar	Exhibit, Deaf-Blind Awareness Day State House, Boston, MA	100
27-Mar	Field visit, Dean College Disability Center, Franklin, MA	
27-Mar	Presentation, Bellingham COA, Bellingham, MA	7
29-Mar	Presentation, Winchendon COA, Winchendon, MA	
31-Mar	Presentation, Acoustic Neuroma Group, Chicopee, MA	
3-Apr	Field Visit, East Boston Chamber of Commerce, East Boston, MA	
6-Apr	Field Visit, Martha's Vineyard Visiting Nurses, Martha's Vineyard, MA	
6-Apr	Field Visit, West Tisbury Council on Aging, Martha's Vineyard, MA	
7-Apr	Exhibit, Martha's Vineyard Hospital Health Fair, Martha's Vineyard, MA	150
11-Apr	Field Visit, Salem State University Student Services, Salem, MA	
11-Apr	Presentation, Grosvenor Park Rehabilitation, Salem, MA	5
13-Apr	Exhibit, Medway Council on Aging Senior Expo, Medway, MA	80
13-14		
Apr	Exhibit, New England Deaf Senior Citizens Conference, Westborough, MA	150
15-Apr	Meeting, Massachusetts Parkinson's Disease Association, Westborough, MA	
17-Apr	Exhibit, Cambridge Elder Services Senior Health Fair, Somerville, MA	300
19-Apr	Field Visit, Spaulding Rehabilitation, Lexington, MA	
20-Apr	Presentation, Carmet Terrace Assisted Living, Framingham, MA	12
20-Apr	Exhibit, La Alianza Hospana Senior Health Fair, Boston, MA	30
23-Apr	Presentation, Burlington Council on Aging, Burlington, MA	3
24-Apr	Field Visit, Jewish Nursing Home and Rehabilitation, Chelsea, MA	
25-Apr	Field Visit, Traditions of Dedham Assisted Living, Dedham, MA	

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25-Apr	Presentation, ALS (Massachusetts Chapter) Support Group	7
26-Apr	Presentation, Caring Health Center (RFB Training)	15
28-Apr	Exhibit, DEAF INC Health Fair, Boston, MA	150
30-Apr	Outreach meeting with MCDHH, MCB and Verizon	
3-May	Field Visit, Veterans INC, Shrewsbury, MA	
3-May	Presentation Golden AGE group, Hubbardston, MA	12
2-May	Exhibit, Easter Seals Assistive Tech Conference, Danvers, MA	100+
4-May	Field Visit, Nantucket Chamber of Commerce, Nantucket, MA	
5-May	Exhibit, Nantucket Hospital Health Fair, Nantucket, MA	120
8-May	Exhibit, Eldercare Conference, West Boylston, MA	600
9-May	ALS Massachusetts Chapter Meeting, Sturbridge, MA	7
16-May	Field Visit, Duxbury Public Library, Duxbury, MA	
16-May	Exhibit, Duxbury Senior Center Health Expo, Duxbury, MA	30
21-May	1:1 visit with CTS customer, Saugus, MA	
22-May	Exhibit, Aging Well Conference, Holyoke, MA	100
23-May	Field Visit, Boston Medical Center, Boston, MA	
23-May	Meeting with Tufts University Office of Equal Opportunity, Medford, MA	
24-May	Field Visit, Northampton Council on Aging, Northampton, MA	
24-May	Presentation, Better Hearing and Speech Award of Clarke School for Hearing and Speech	50
30-May	Hamilton Scholarship Award Presentation at Beverly High School, Beverly, MA	
31-May	Television/Media Outreach: Elderly Commission Senior Network Interview, Boston, MA	
3-Jun	Exhibit: American Parkinson's Disease Assoc. Walk, Canton, MA	100+
4-Jun	Field Visit: The New England Home for the Deaf, Danvers, MA	
5-Jun	Field Visit: Cape Cod VNA, Hyannis, MA	
5-Jun	Field Visit: Emeritus Assisted Living, Hyannis, MA	
5-Jun	Presentation: Barnstable COA, Hyannis, MA	7
8-Jun	Presentation, Beech Street Community Center, Roslindale, MA	4
8-Jun	Field Visit: Grove Hall Community Center, Dorchester, MA	
9-Jun	Exhibit: Latino Resource Fair for Seniors and People with Disabilities, Hyde Park, MA	50+
15-Jun	Exhibit: Stand Down at Veterans Inc., Shrewsbury, MA	150
19-20 Jun	Exhibit: Mass Rehab commission Conference, Norwood, MA	200
22-Jun	Field Visit: Chelmsford Senior Center, Chelmsford, MA	
25-Jun	Field Visit: Epoch Senior Health, Melrose, MA	
25-Jun	Field Visit: Robert Dutton Adult Day Health, Wakefield, MA	
27-Jun	Field Visit: Italian American War Veterans Post #6, East Boston, MA	
27-Jun	Television/Median Outreach, Elderly Commission Senior Radio Show, Boston, MA	
28-Jun	Field Visit: Youville Assisted Living, Lexington, MA	
28-Jun	Field Visit: Veterans of Foreign War, Lexington, MA	
July 2-3	Exhibit, Harvard Pilgrim Health and fitness Expo, Foxborough, MA	10,000
10-Jul	Field Visit, Children's Hospital, Waltham, MA	
10-Jul	Presentation, ALS Support Group, Waltham, MA	10
13-Jul	Exhibit, Belchertown Health and Safety Day, Belchertown, MA	60
13-Jul	Field Visit, Belchertown COA, Belchertown, MA	
16-Jul	Field Visit, Lowell Vets Center, Lowell, MA	
17-Jul	Field Visit, Sunrise Assisted Living, Burlington, MA	
30-Jul	Field Visit, Winchester Senior Center, Winchester, MA	
31-Jul	Field Visit, Zelma Lacy Assisted Living, Charlestown, MA	

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**APPENDIX C  
HAMILTON SUPPLEMENTAL MATERIALS**

## **How to make long distance work for you.**

**Step One - Determine your call patterns.**

Do you call long distance often?

If yes, where do you call? In-State? Out-of-State?

What time of day do you make these calls?

**Step Two – Shop around.**

Call different long distance companies. Tell them your long distance calling patterns. They may have a calling plan that fits your calling patterns.

**Step Three – Choose the best rate plan that fits your call patterns.**

Inform long distance carrier that you are a TTY/VCO user. Many long distance companies have TTY/VCO user discounts. Also tell them that you use the relay and want the same calling plan rates for your relay calls.

**Step Four – Call your relay's Customer Service Department and tell them which long distance company you prefer to use.**

Also tell Customer Service about any calling plans you have with your long distance company.

**Step Five – Pay attention to rate changes.**

Long distance companies are competing for your business. Rates and calling plans are constantly changing. From time to time, check back with your long distance carrier, as well as others, to see if they have a better plan that can save you more money.

**\*\*NOTE: IF YOU DO NOT CALL YOUR CARRIER AND LET THEM KNOW YOU ARE THEIR CUSTOMER AND USE RELAY YOU WILL BE BILLED AT A HIGHER RATE.**

Listed below are the Long Distance Companies that are currently offered through the relay:

<b><u>Massachusetts Long Distance Carriers--(27)</u></b>		
AT&T	Global Crossing	Primus Telcom
BCN--Better Communications Now	HTC Global Reach	SBC/AT&T
Broadwing/Level3	InterBel	Sprint
Century Link	LDCB	Time Warner
Charter	McGraw	TNCI
Close Call	MCI	TTI National
Coastal Long Distance	Moundridge Telecom	USA Telephone
Comcast	Pineland Long Distance	VarTec FiveLine
Excel	Pine Tree Network	Verizon